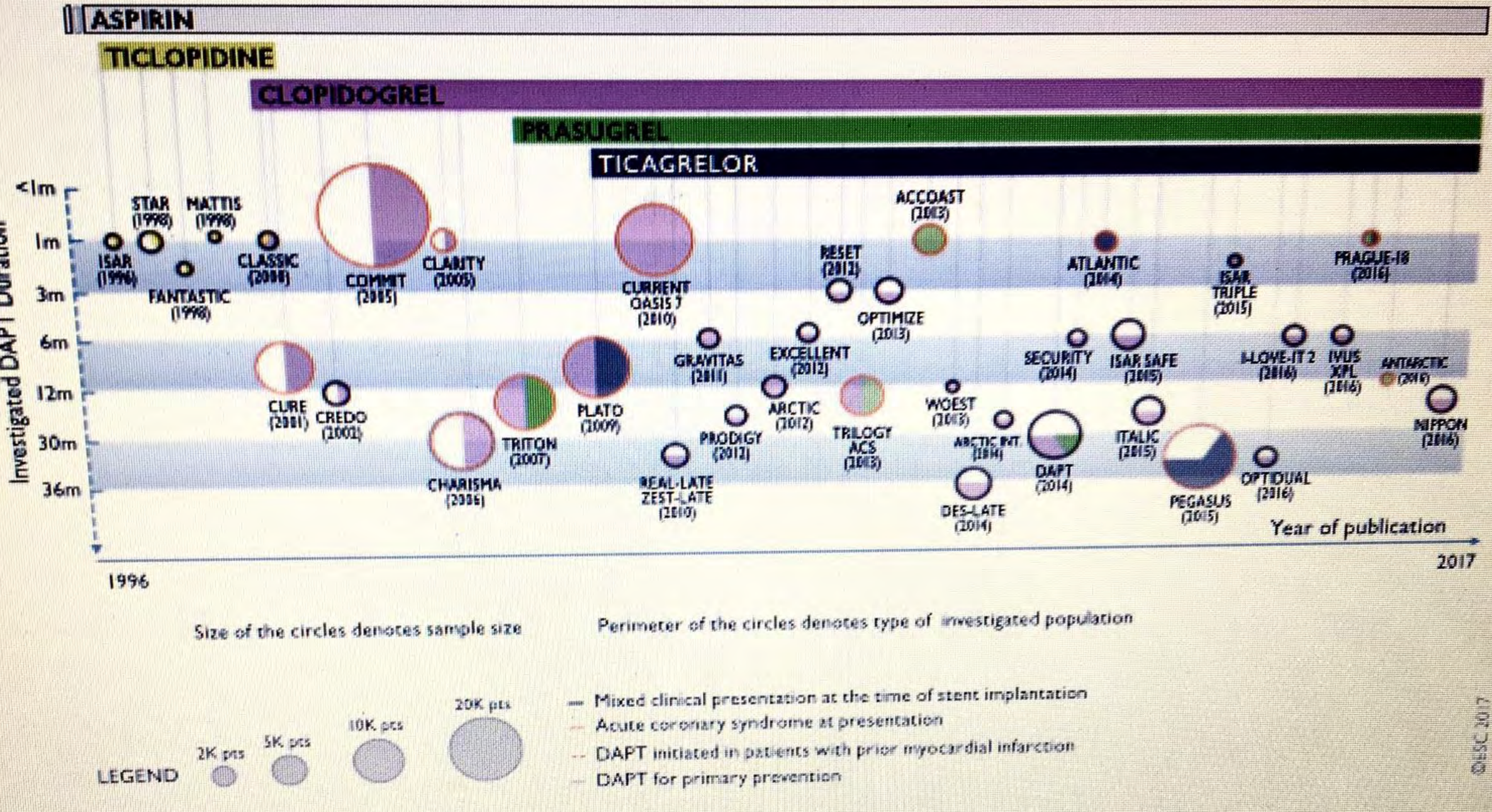
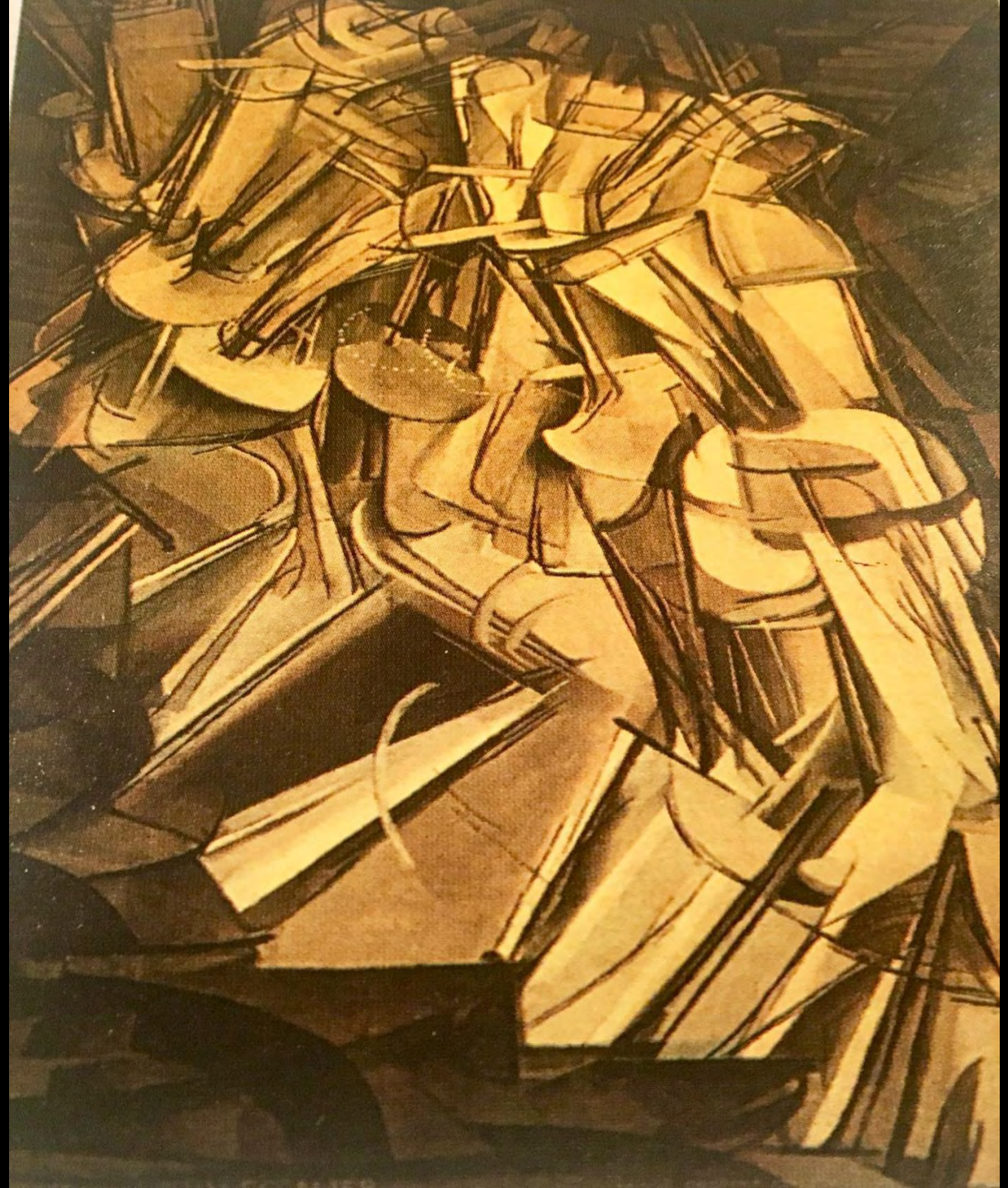

ASPIRIN
TICLOPIDINE
CLOPIDOGREL
PRASUGREL
TICAGRELOR
Investigated DAPT Duration
<1m
1m
3m
6m
12m
30m
36m
1996
2017
Year of publication
ISAR (1996)
STAR (1998)
MATTIS (1998)
FANTASTIC (1998)
CLASSIC (2000)
COMMIT (2005)
CLARITY (2005)
CURE (2001)
CREDO (2002)
CHARISMA (2006)
TRITON (2007)
PLATO (2009)
CURRENT OASIS 7 (2010)
GRAVITAS (2011)
PRODIGY (2012)
REAL-LATE ZEST-LATE (2010)
EXCELLENT (2012)
ARCTIC (2012)
RESET (2012)
OPTIMIZE (2013)
TRILOGY ACS (2013)
ACCOAST (2013)
WOEST (2013)
ARCTIC INT. (2014)
DES-LATE (2014)
DAPT (2014)
SECURITY (2014)
ATLANTIC (2014)
ISAR SAFE (2015)
ITALIC (2015)
PEGASUS (2015)
ISAR TRIPLE (2015)
OPTIDUAL (2016)
I-LOVE-IT 2 (2016)
IVUS XPL (2016)
ANTARCTIC (2016)
NIPPON (2016)
PRAGUE-18 (2016)
Size of the circles denotes sample size
Perimeter of the circles denotes type of investigated population
LEGEND
2K pts
5K pts
10K pts
20K pts
Mixed clinical presentation at the time of stent implantation
Acute coronary syndrome at presentation
DAPT initiated in patients with prior myocardial infarction
DAPT for primary prevention
@ESC_NOT



ESC European Society of Cardiology

European Heart Journal (2018) **39**, 181–183
doi:10.1093/eurheartj/ehy009

Dual antiplatelet therapy: how, how long, and in which patients?

Thomas F. Lüscher, MD, FESC

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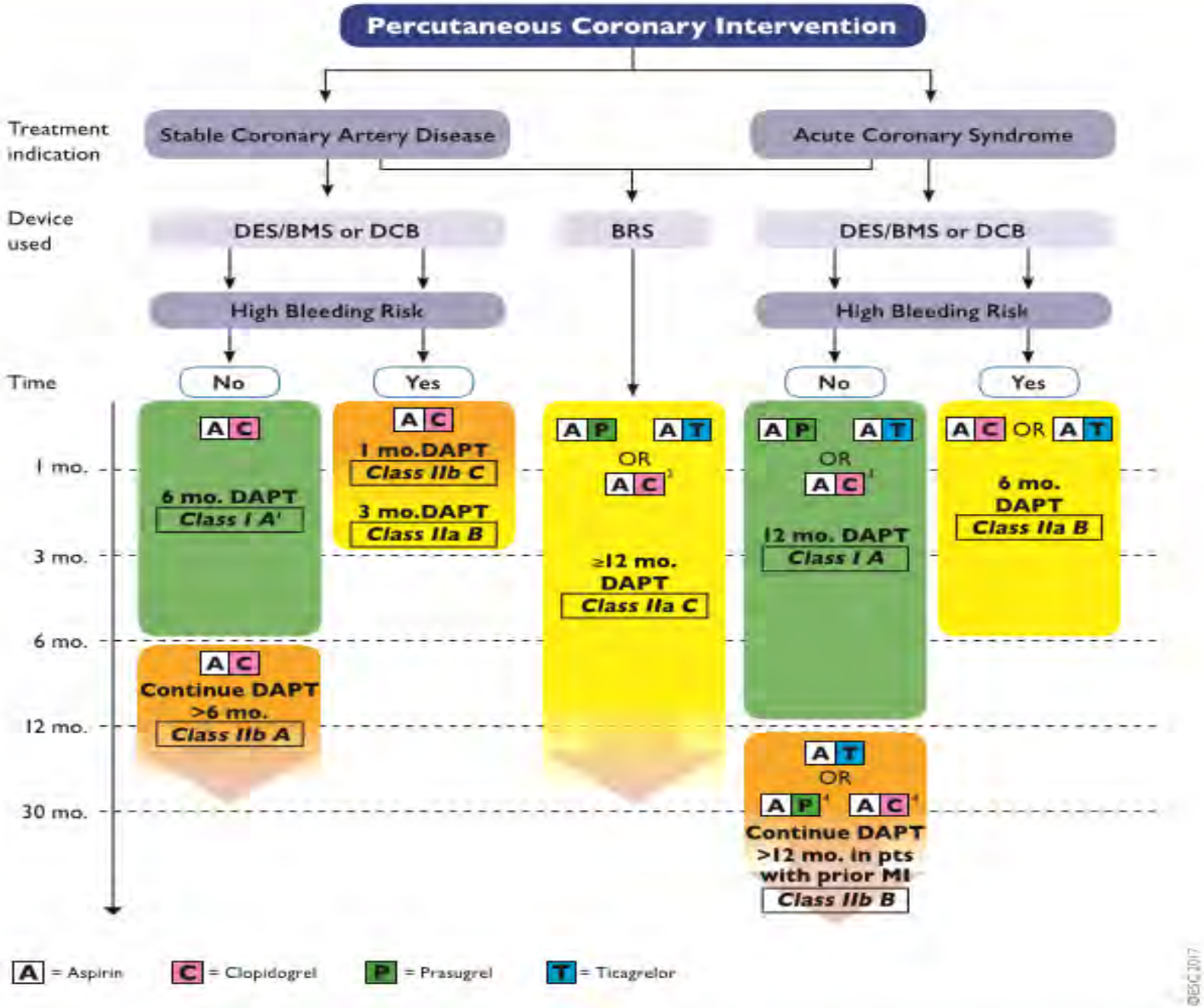
Thrombus formation is a crucial event in acute coronary syndromes,[1] bypass occlusion,[2] and stent thrombosis.[3] In the coronary circulation, platelet activation is an initial event,[4] while expression of tissue factor and subsequent activation of the coagulation cascade[5] and invading white blood cells[6] solidify the evolving clot, an event that often leads to vascular occlusion. Platelets are primarily activated by thromboxane and ADP via thromboxane and P_2Y_{12} receptors on the platelet surface that eventually lead to the expression of the glycoprotein IIB/IIIA receptor that binds fibrin. Twenty-one years ago, the first randomized clinical trial established the superiority of dual antiplatelet therapy over anticoagulant therapy among patients undergoing percutaneous coronary intervention.[7] Thus, dual antiplatelet therapy has become a crucial therapeutic intervention in patients with stable or acute coronary artery disease.

However, the duration of dual antiplatelet therapy and its combination with anticoagulants in certain patients remain clinical challenges. Thus, the updated '**2017 ESC focused update on dual antiplatelet therapy in coronary artery disease developed in collaboration with EACTS: The Task Force for dual antiplatelet therapy in coronary artery disease of the European Society of Cardiology (ESC) and of the European Association for Cardio-Thoracic Surgery (EACTS)**', authored by Marco Valgimigli and colleagues from the European [8] The authors remind us randomized trials have caused major paradigm shifts. Indeed, late and very late stent thrombosis have declined considerably with newer generation drug-eluting stents.[9–11] Hence, the risk of bleeding associated with dual antiplatelet therapy prolongation beyond 1 year does not seem to be justified by the small absolute gain in preventing stent thrombosis. Yet, dual antiplatelet therapy seems to reduce the long-term risk of non-stent-related infarction and stroke.[12,13] Hence, after 21 years of research, dual antiplatelet therapy has moved from a local, i.e. stent-related, to a systemic treatment strategy, i.e. capable of preventing thrombotic arterial occlusions, conveying global patient protection.

The Guidelines are complemented by '**Case-based implementation of the 2017 ESC Focused Update on Dual Antiplatelet Therapy in Coronary Artery Disease: The Task Force for the Management of Dual Antiplatelet Therapy in Coronary Artery Disease of the European Society of Cardiology (ESC) and of the European Association for Cardio-Thoracic Surgery (EACTS)**', where various cases are discussed.[14]

In a research article entitled '**Clopidogrel reloading for patients with acute myocardial infarction already on clopidogrel therapy**', Jacob Doll and colleagues from the VA Puget Sound Health Care System in Seattle, Washington, USA sought to determine the association of clopidogrel reloading with in-hospital bleed-


Percutaneous Coronary Intervention
Treatment indication
Stable Coronary Artery Disease
Acute Coronary Syndrome
Device used
DES/BMS or DCB
BRS
DES/BMS or DCB
High Bleeding Risk
High Bleeding Risk
Time
No
Yes
No
Yes
1 mo.
3 mo.
6 mo.
12 mo.
30 mo.
A C
6 mo. DAPT
Class I A1
A C
1 mo.DAPT
Class IIb C
3 mo.DAPT
Class IIa B
A P
A T
OR
A C2
≥12 mo. DAPT
Class IIa C
A P
A T
OR
A C4
12 mo. DAPT
Class I A
A C
OR
A T
6 mo. DAPT
Class IIa B
A C
Continue DAPT >6 mo.
Class IIb A
A T
OR
A P4
A C4
Continue DAPT >12 mo. in pts with prior MI
Class IIb B
A = Aspirin
C = Clopidogrel
P = Prasugrel
T = Ticagrelor
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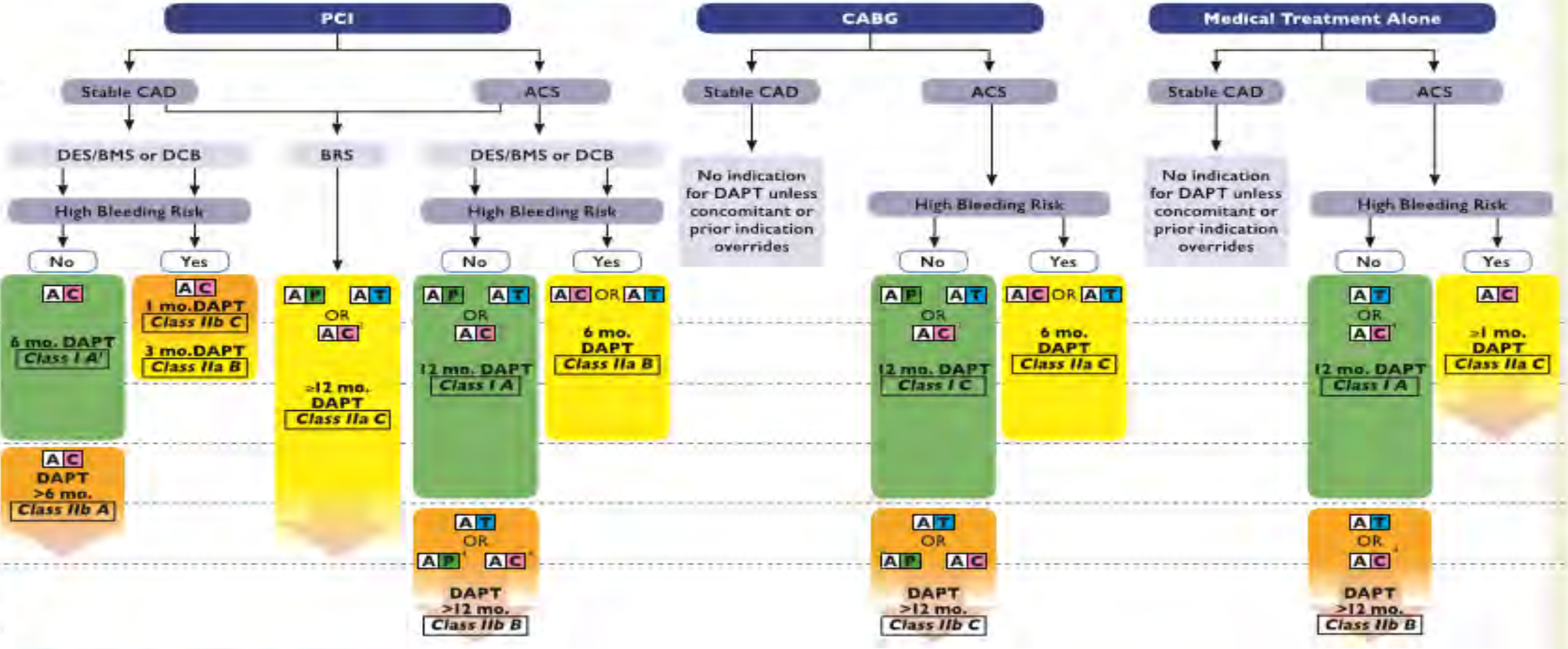


Algorithm for DAPT in patients with coronary artery disease. ACS = acute coronary syndrome, BMS = bare-metal stent; BRS = bioresorbable vascular scaffold; CABG = Coronary artery
DCB = drug-coated balloon; DES: drug-eluting stent; PCI = percutaneous coronary intervention; Stable CAD = stable coronary artery disease.
ng risk is considered as an increased risk of spontaneous bleeding during DAPT (e.g. PRECISE-DAPT score ≥25).
ling refers to the ESC Classes of Recommendations (green = Class I; yellow = Class IIa; orange = Class IIb).
presented within the same line are sorted in alphabetic order, no preferential recommendation unless clearly stated otherwise.

Table 6 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

7.3 Cessation of all antiplatelet agents

Data on the timing of cessation of any antiplatelet agents in stented patients requiring chronic OAC are scarce. In stabilized event-free patients, discontinuation of any antiplatelet agent at 1 year after stenting is encouraged in this patient population based on studies demonstrating that OACs alone are superior to aspirin post-ACS, and OAC + aspirin may not be more protective but associated with excess bleeding.[198] Dual therapy with OAC and one antiplatelet agent (aspirin or clopidogrel) may be considered beyond 1 year in patients at very high risk of coronary events as defined in *Table 5*[34] and in patients with mechanical prosthesis and atherosclerotic disease.

in patients with a normal renal function is uncertain. Three ongoi large-scale outcome studies are evaluating combinations of NOA or VKAs with antiplatelet therapy in AF patients undergoing ste PCI (NCT02164864, NCT02415400, and NCT02866175). Varic dose regimens of NOAC, different types of $P2Y_{12}$ inhibitors, and ferent exposure times are being evaluated.

7.5 Type of stent

The choice of newer-generation DES vs. BMS in patients requiri long-term anticoagulation is no longer controversial. First, data fro the DAPT trial indicate a similar impact of prolonged DAPT admin tration irrespective of stent type (BMS vs. DES),[128] and the risk adverse events among patients with DAPT cessation and patie undergoing non-cardiac surgery indicate no differences betwe BMS and DES.[17,129,203] Second, two randomized trials have demo strated the superiority of newer-generation DES over BMS in hi bleeding risk patients who cannot tolerate long-term exposure DAPT,[130,204] such as those needing chronic OAC (section 2.2).

Altogether, both trials suggest that second-generation DES shou be the default choice in patients with high bleeding risk.

8. Elective non-cardiac surgery in patients on dual antiplatelet therapy

It is estimated that 5–25% of patients with coronary stents m require non-cardiac surgery within 5 years after stent implantation. Management of patients on DAPT who are referred for surgical pr

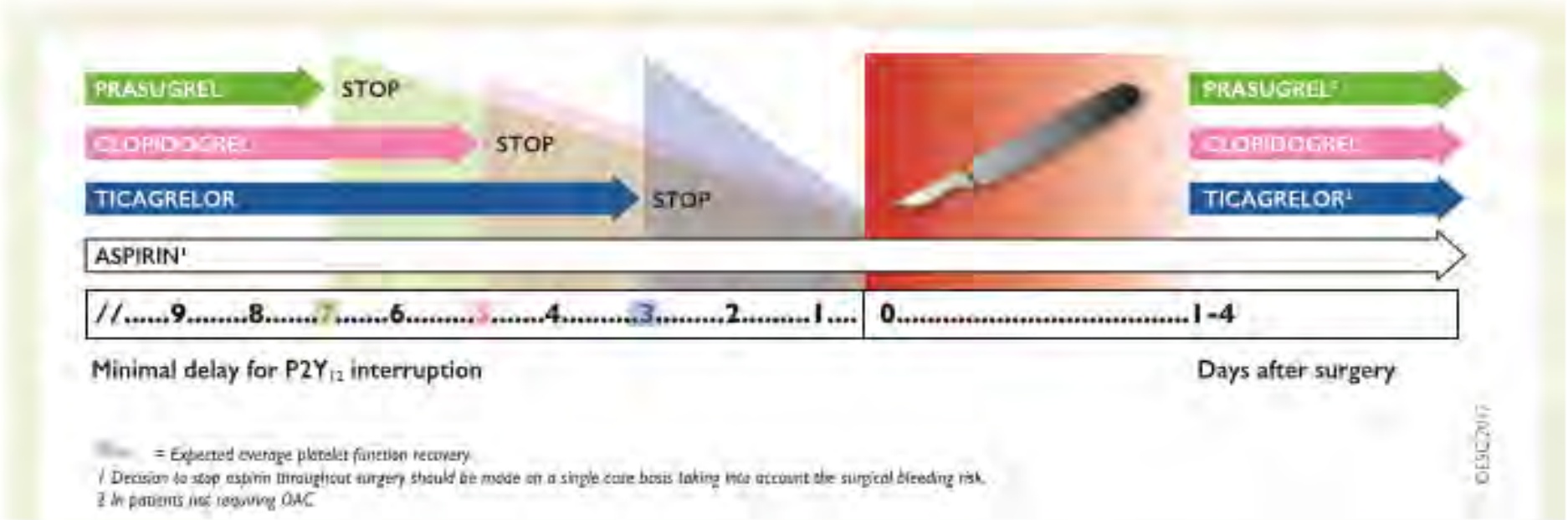


Figure 9 Minimal discontinuation and re-implementation time frames of dual antiplatelet therapy (DAPT) for patients undergoing elective surgery
OAC = oral anticoagulant.

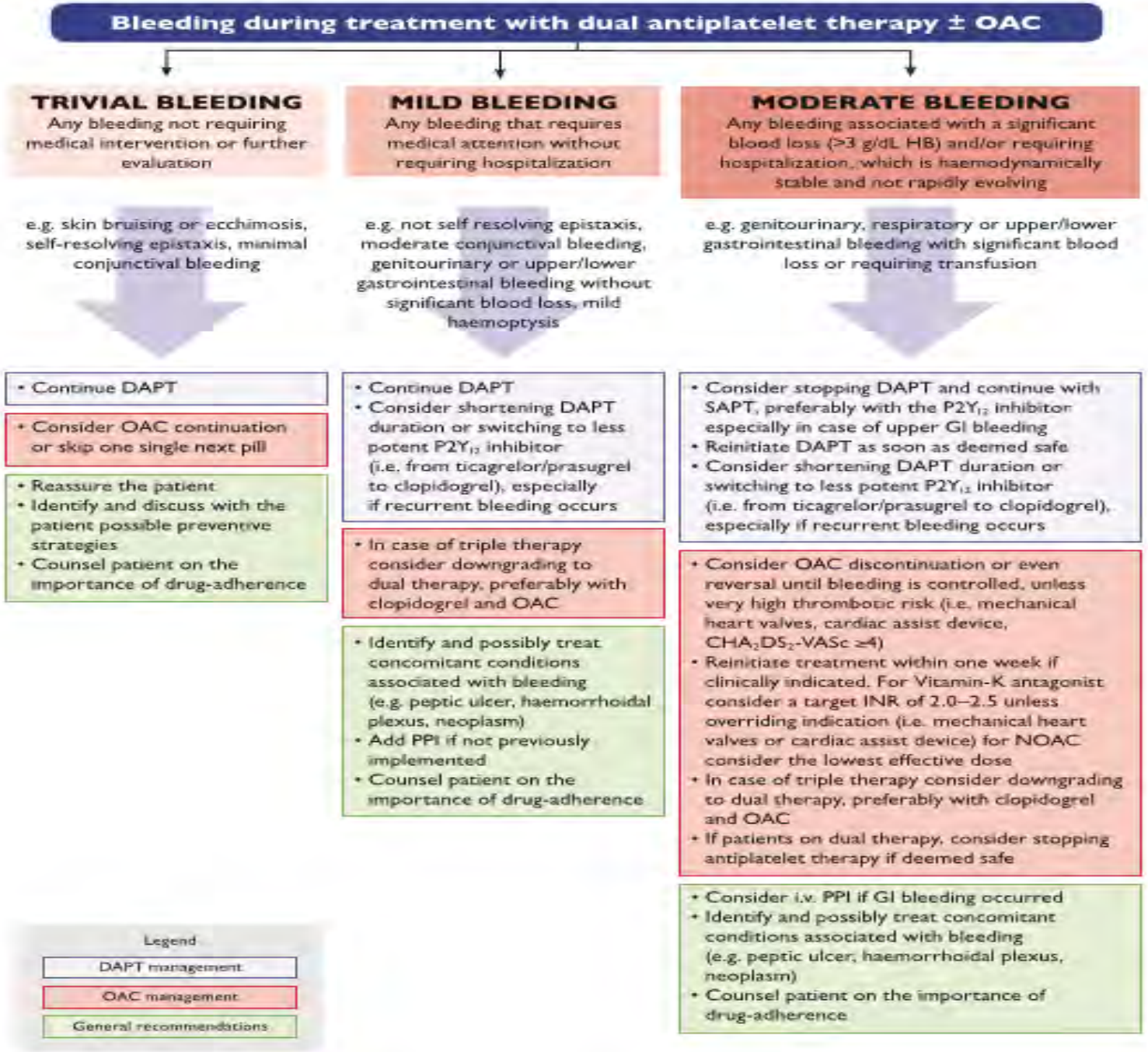
9. Gender consideration and special populations

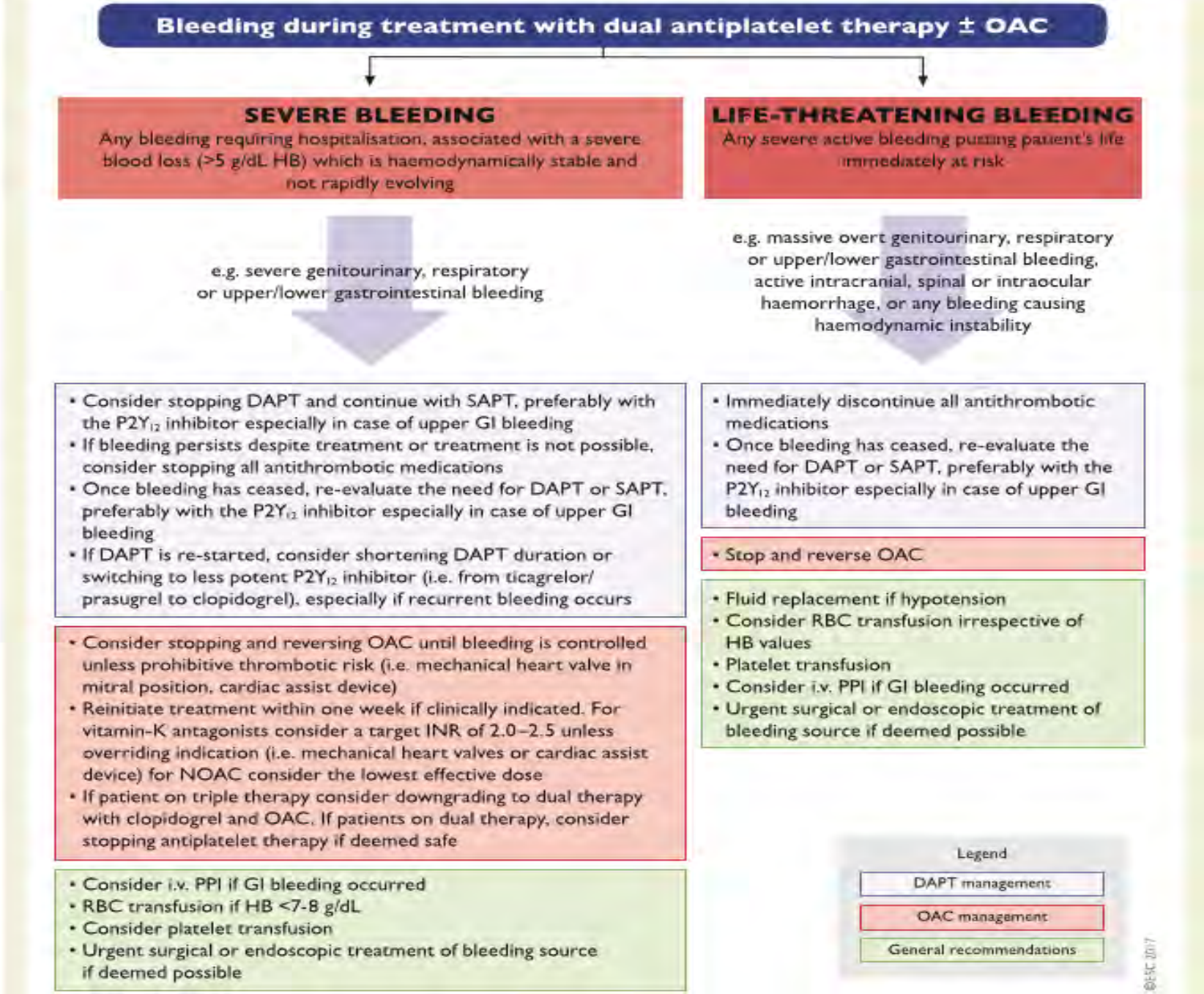
9.1 Gender specificities

There is no convincing evidence for a gender-related difference in the efficacy and safety of currently available DAPT type or duration across studies. No single trial or pooled analysis of investigations assessing a shorter than 1 year vs. at least 1 year DAPT duration has shown heterogeneous findings across genders.[26,112,240,241] In the DAPT trial, there

presence of diabetes should affect decision making with respect to the choice of $P2Y_{12}$ inhibitors.

As it related to DAPT duration, the DAPT study found a slightly lower relative risk reduction for MI endpoint in patients with diabetes as compared to those without diabetes ($P_{int} = 0.02$).[242] However, there was no signal for heterogeneity with respect to the concomitant presence of diabetes mellitus across all other ischaemic or safety endpoints. Finally, no difference with respect to the presence or absence of diabetes was observed for the primary efficacy endpoint in the PEGASUS study ($P_{int} = 0.99$).[145] Altogether, current evidence supports


Bleeding during treatment with dual antiplatelet therapy ± OAC
TRIVIAL BLEEDING
Any bleeding not requiring medical intervention or further evaluation
MILD BLEEDING
Any bleeding that requires medical attention without requiring hospitalization
MODERATE BLEEDING
Any bleeding associated with a significant blood loss (>3 g/dL HB) and/or requiring hospitalization, which is haemodynamically stable and not rapidly evolving
e.g. skin bruising or ecchimosis, self-resolving epistaxis, minimal conjunctival bleeding
e.g. not self resolving epistaxis, moderate conjunctival bleeding, genitourinary or upper/lower gastrointestinal bleeding without significant blood loss, mild haemoptysis
e.g. genitourinary, respiratory or upper/lower gastrointestinal bleeding with significant blood loss or requiring transfusion
• Continue DAPT
• Consider OAC continuation or skip one single next pill
• Reassure the patient
• Identify and discuss with the patient possible preventive strategies
• Counsel patient on the importance of drug-adherence
• Continue DAPT
• Consider shortening DAPT duration or switching to less potent P2Y12 inhibitor (i.e. from ticagrelor/prasugrel to clopidogrel), especially if recurrent bleeding occurs
• In case of triple therapy consider downgrading to dual therapy, preferably with clopidogrel and OAC
• Identify and possibly treat concomitant conditions associated with bleeding (e.g. peptic ulcer, haemorrhoidal plexus, neoplasm)
• Add PPI if not previously implemented
• Counsel patient on the importance of drug-adherence
• Consider stopping DAPT and continue with SAPT, preferably with the P2Y12 inhibitor especially in case of upper GI bleeding
• Reinitiate DAPT as soon as deemed safe
• Consider shortening DAPT duration or switching to less potent P2Y12 inhibitor (i.e. from ticagrelor/prasugrel to clopidogrel), especially if recurrent bleeding occurs
• Consider OAC discontinuation or even reversal until bleeding is controlled, unless very high thrombotic risk (i.e. mechanical heart valves, cardiac assist device, CHA2DS2-VASc ≥4)
• Reinitiate treatment within one week if clinically indicated. For Vitamin-K antagonist consider a target INR of 2.0–2.5 unless overriding indication (i.e. mechanical heart valves or cardiac assist device) for NOAC consider the lowest effective dose
• In case of triple therapy consider downgrading to dual therapy, preferably with clopidogrel and OAC
• If patients on dual therapy, consider stopping antiplatelet therapy if deemed safe
• Consider i.v. PPI if GI bleeding occurred
• Identify and possibly treat concomitant conditions associated with bleeding (e.g. peptic ulcer, haemorrhoidal plexus, neoplasm)
• Counsel patient on the importance of drug-adherence
Legend
DAPT management
OAC management
General recommendations


Bleeding during treatment with dual antiplatelet therapy ± OAC
SEVERE BLEEDING
Any bleeding requiring hospitalisation, associated with a severe blood loss (>5 g/dL HB) which is haemodynamically stable and not rapidly evolving
LIFE-THREATENING BLEEDING
Any severe active bleeding putting patient's life immediately at risk
e.g. severe genitourinary, respiratory or upper/lower gastrointestinal bleeding
e.g. massive overt genitourinary, respiratory or upper/lower gastrointestinal bleeding, active intracranial, spinal or intraocular haemorrhage, or any bleeding causing haemodynamic instability
• Consider stopping DAPT and continue with SAPT, preferably with the P2Y12 inhibitor especially in case of upper GI bleeding
• If bleeding persists despite treatment or treatment is not possible, consider stopping all antithrombotic medications
• Once bleeding has ceased, re-evaluate the need for DAPT or SAPT, preferably with the P2Y12 inhibitor especially in case of upper GI bleeding
• If DAPT is re-started, consider shortening DAPT duration or switching to less potent P2Y12 inhibitor (i.e. from ticagrelor/prasugrel to clopidogrel), especially if recurrent bleeding occurs
• Consider stopping and reversing OAC until bleeding is controlled unless prohibitive thrombotic risk (i.e. mechanical heart valve in mitral position, cardiac assist device)
• Reinitiate treatment within one week if clinically indicated. For vitamin-K antagonists consider a target INR of 2.0–2.5 unless overriding indication (i.e. mechanical heart valves or cardiac assist device) for NOAC consider the lowest effective dose
• If patient on triple therapy consider downgrading to dual therapy with clopidogrel and OAC. If patients on dual therapy, consider stopping antiplatelet therapy if deemed safe
• Consider i.v. PPI if GI bleeding occurred
• RBC transfusion if HB <7-8 g/dL
• Consider platelet transfusion
• Urgent surgical or endoscopic treatment of bleeding source if deemed possible
• Immediately discontinue all antithrombotic medications
• Once bleeding has ceased, re-evaluate the need for DAPT or SAPT, preferably with the P2Y12 inhibitor especially in case of upper GI bleeding
• Stop and reverse OAC
• Fluid replacement if hypotension
• Consider RBC transfusion irrespective of HB values
• Platelet transfusion
• Consider i.v. PPI if GI bleeding occurred
• Urgent surgical or endoscopic treatment of bleeding source if deemed possible
Legend
DAPT management
OAC management
General recommendations
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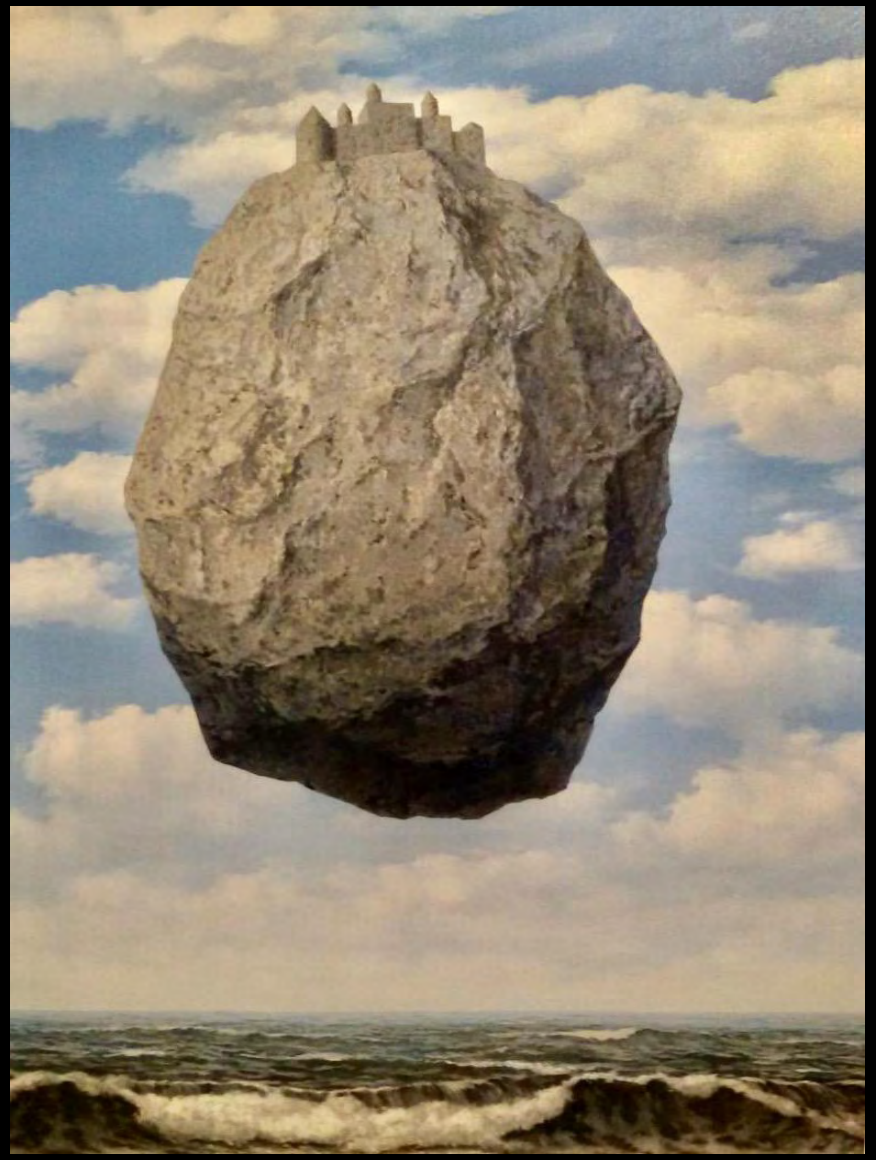
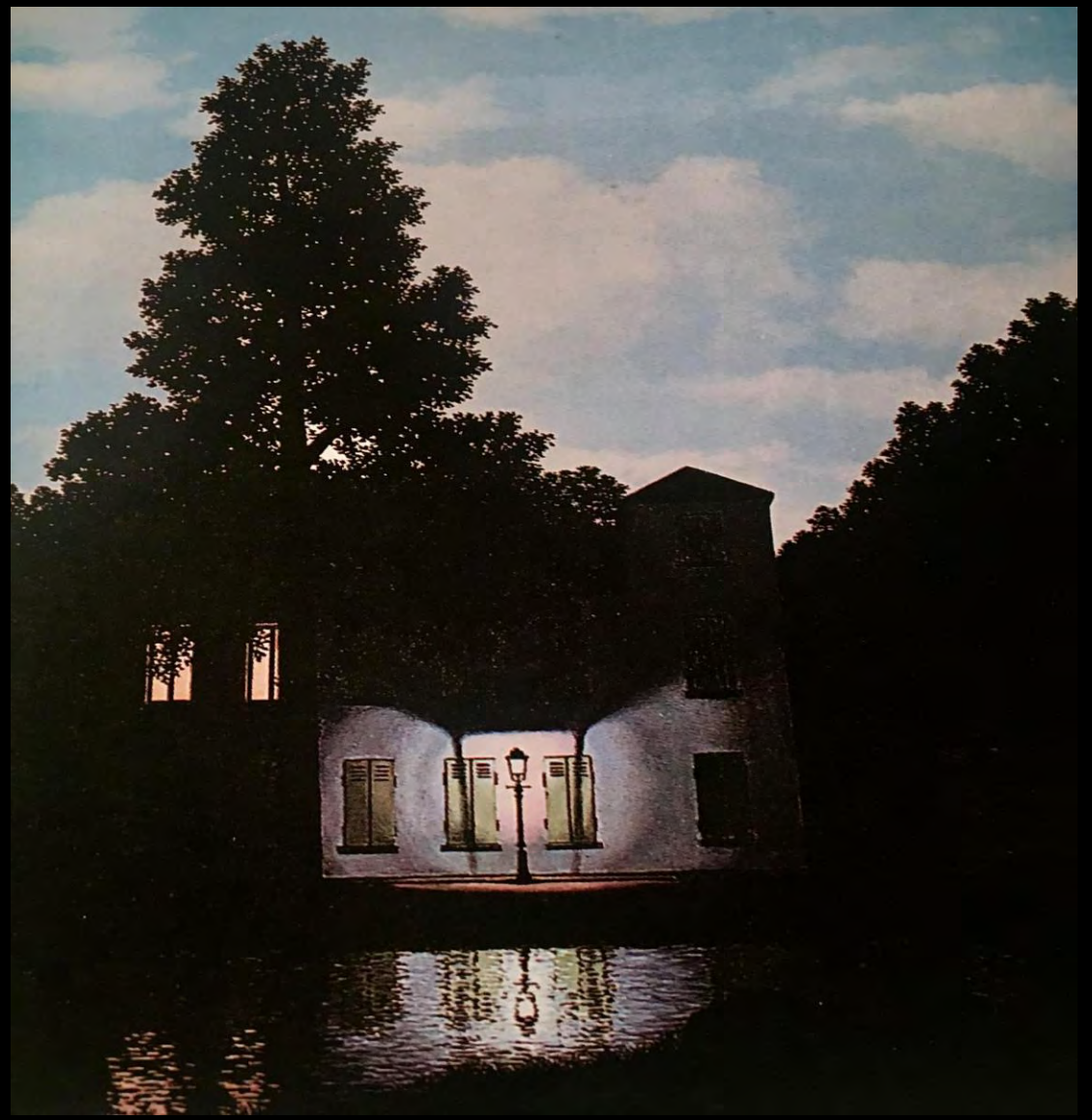
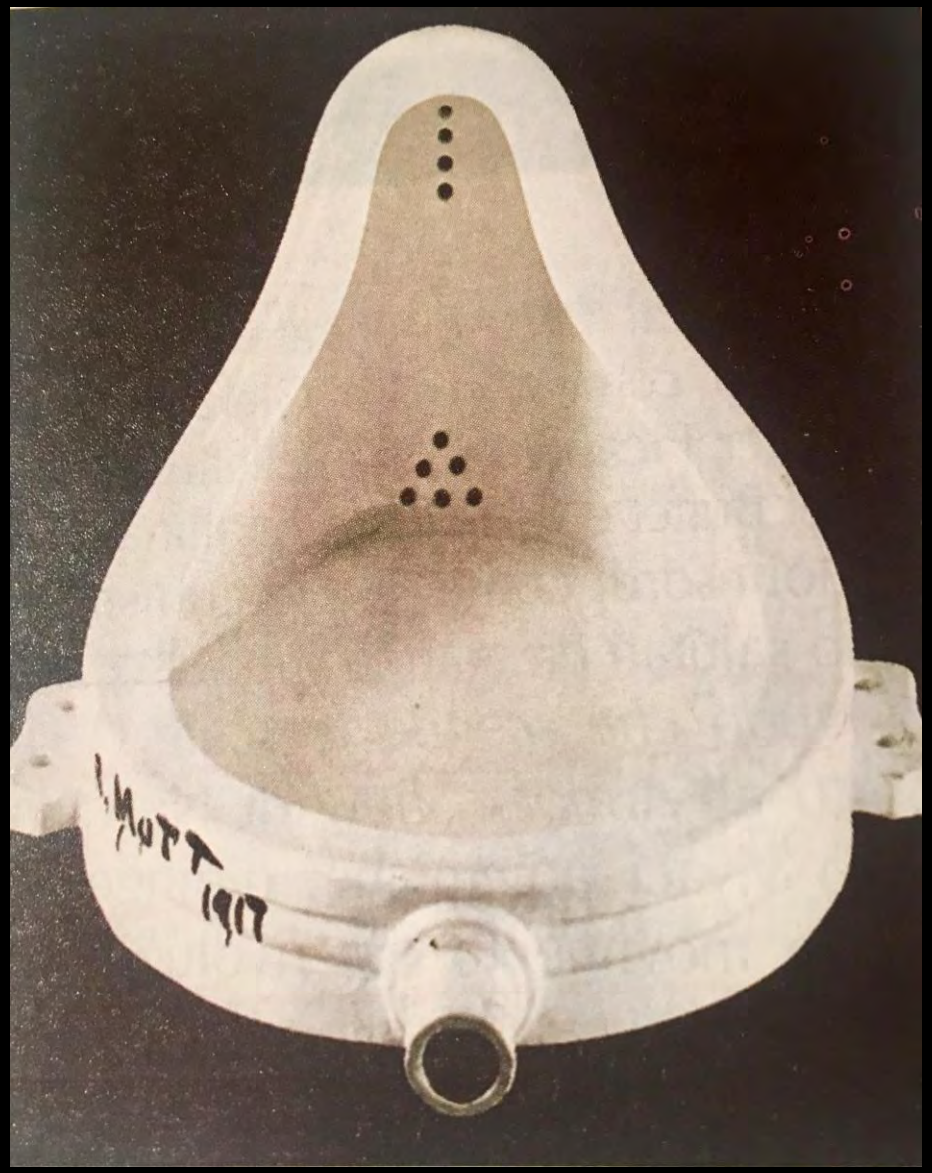
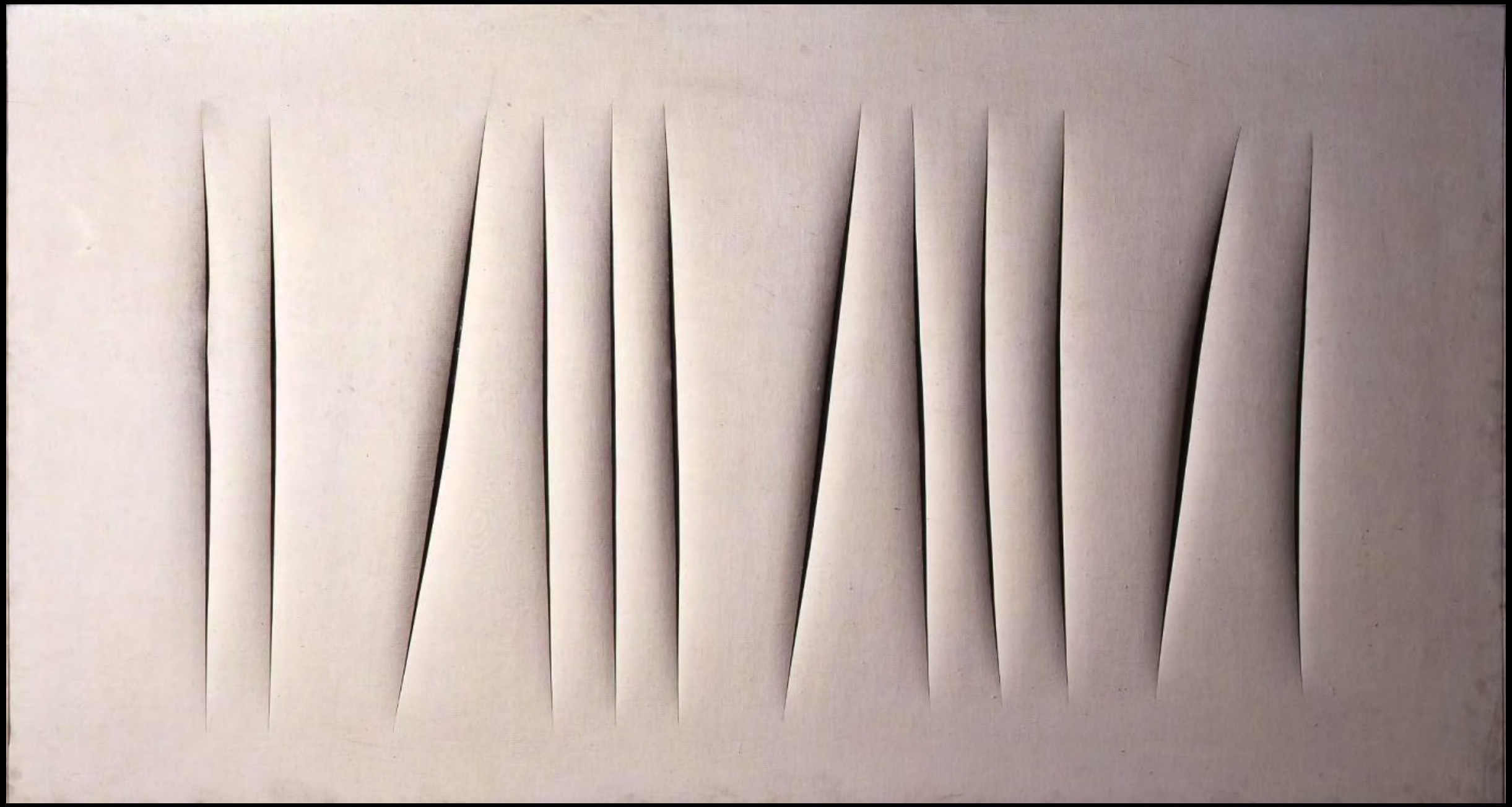








PRAGUE 18 Trial: Prasugrel e Ticagrelor sono altrettanto efficaci durante il primo anno dopo l'infarto miocardico

Fonte: AHA 2017 Scientific Session, Anaheim - California, USA.

Questi sono le conclusioni presentate all'AHA da Zuzana Motovska della Charles University di Praga, Repubblica Ceca. Dal momento che i risultati iniziali dello studio multicentrico PRAGUE-18 non hanno evidenziato differenze significative tra due inibitori del P2Y12 (prasugrel e ticagrelor) nel breve termine, il follow-up a lungo termine è stato concentrato su un confronto tra prasugrel e ticagrelor, compresa la sicurezza di uno switch dai farmaci esaminati nello studio a clopidogrel. Un totale di 1.230 pazienti con infarto miocardico acuto (AMI) trattati con PCI sono stati randomizzati in fase acuta a prasugrel o ticagrelor con una durata prevista di trattamento di 12 mesi. L'endpoint combinato era la morte cardiovascolare (CV), l'infarto miocardico o l'ictus a 1 anno. Poiché i pazienti dovevano coprire i costi del prasugrel e del ticagrelor dopo la dimissione dall'ospedale, alcuni pazienti hanno deciso di passare a clopidogrel per ragioni economiche. L'endpoint combinato di efficacia si è verificato nel 6,6% dei pazienti trattati con prasugrel e nel 5,7% dei pazienti con ticagrelor; HR [prasugrel vs ticagrelor], 1.167; IC 95%, 0,742-1,835; P = 0,503. Non sono state riscontrate differenze significative su mortalità CV (3,3% vs 3,0%, P = 0,769), su infarto miocardico non fatale (3,0% vs 2,5%, P = 0,611), su ictus (1,1% contro 0,7%, P = 0,423), su morte per tutte le cause (4,7% vs 4,2%, P = 0,654), su trombosi dello stent (1,1% contro 1,5%, P = 0,535), su i sanguinamenti (10,9% contro 11,1%, P = , e sui sanguinamenti maggiori (0,9% vs 0,7%, P = 0,754). La percentuale di pazienti che sono passati a clopidogrel per ragioni economiche durante il periodo di studio era il 34,1% (N = 216) per il prasugrel e il 44,4% (N = 265) per il ticagrelor, P = 0,003. Il tempo medio dalla dimissione allo switch da farmaco dello studio a colopidogrel è stato di 8 (5-37) giorni per il prasugrel e 8 (5-34) giorni per il ticagrelor (P = 0,789). I pazienti che sono passati a clopidogrel per motivi economici, avevano (rispetto ai pazienti che hanno continuato i farmaci di studio) un rischio minore di eventi cardiovascolari maggiori; HR, 0,281; 95% CI, 0,152-0,520, P < 0,001.

Con ticagrelor meno eventi cardiovascolari e mortalità dopo attacco cardiaco con coronaropatia multivasale

Martedi 13 Febbraio 2018 *Redazione*

Una nuova sotto-analisi dello studio di Fase III PEGASUS-TIMI 54 pubblicata sul Journal of the American College of Cardiology ha dimostrato come ticagrelor 60 mg riduca del 19% il rischio di eventi cardiovascolari morte cardiovascolare, infarto del miocardio, o infarto (HR 0,81; 95% CI, 0,7 0.95) e del 36% il rischio di morte per attacco cardiaco, in combinazione con aspirina a basso dosaggio. La sottoanalisi è stata condotta in pazienti che hanno avuto

La coronaropatia multivasale si definisce come la presenza di un restringimento di più del 50% di due o più vasi coronarici durante il primo attacco cardiaco.

I risultati suggeriscono che i pazienti che hanno avuto un attacco cardiaco e che soffrono di coronaropatia multivasale, come la maggior parte dei pazienti che hanno partecipato allo studio (12,558 (59,4%), possono trarre beneficio da questo trattamento preventivo antiaggregante oltre al periodo iniziale di 12 mesi post evento.

La sotto-analisi mette in evidenza il rischio aumentato di eventi cardiaci nei pazienti con MVD che hanno già avuto un attacco cardiaco.

I dati si aggiungono a quelli dello studio PRECLUDE, un'analisi sui dati del registro SWEDEHEART, che mostrano come nei pazienti con cardiopatia coronarica (CAD) ad uno o più vasi sanguigni, il rischio di un ulteriore attacco cardiaco rimane alto a causa dell'occlusione delle arterie che non erano state sottoposte a stent durante il primo attacco cardiaco (2).

Lee SY, Hong MK, Palmerini T, et al.

Short-Term Versus Long-Term Dual Antiplatelet Therapy After Drug-Eluting Stent Implantation in Elderly Patients: A Meta-Analysis of Individual Participant Data From 6 Randomized Trials. JACC Cardiovasc Interv 2018;Feb 14:[Epub ahead of print].

What is the optimal duration of dual antiplatelet therapy (DAPT) after the implantation of a drug-eluting stent (DE in elderly patients?

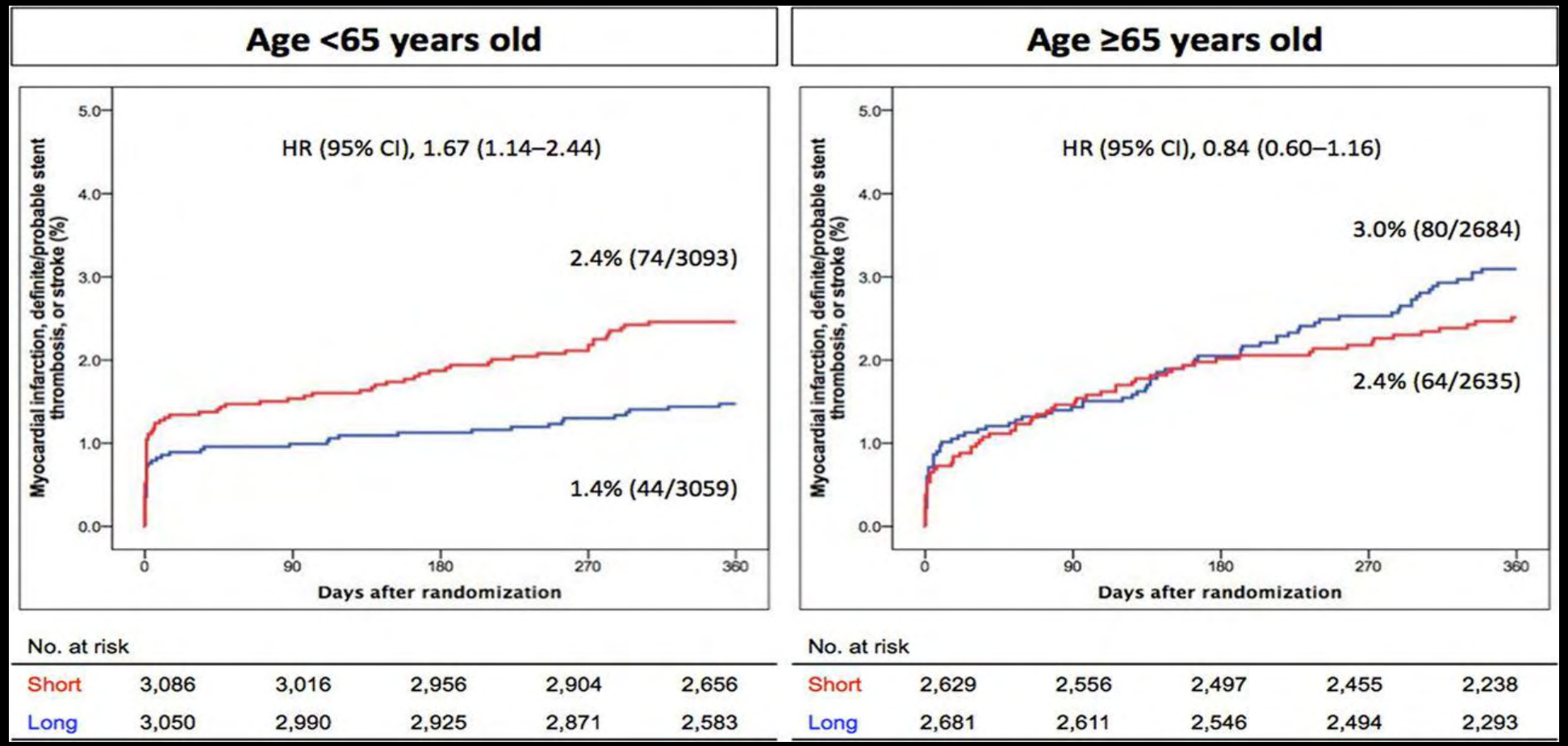
In the subset of younger patients (<65 years of age, n = 6,152), short-term DAPT was associated with higher risk the primary outcome (HR, 1.67; 95% CI, 1.14-2.44; p = 0.0082). In elderly patients (n = 5,319), however, the risk of th primary outcome did not significantly differ between patients receiving short- and long-term DAPT (HR, 0.84; 95% CI, 0.60-1.16; p = 0.2856). Short-term DAPT was associated with a significant reduction in major bleeding compar with long-term DAPT (HR, 0.50; 95% CI, 0.30-0.84; p = 0.0081) in the overall group, and particularly in elderly patients (HR, 0.46; 95% CI, 0.24-0.88; p = 0.0196).

Conclusions:

The authors concluded that short-term DAPT after new-generation DES implantation may be more beneficial in elderly patients than in younger patients with short- versus long-term DAPT.

Perspective:

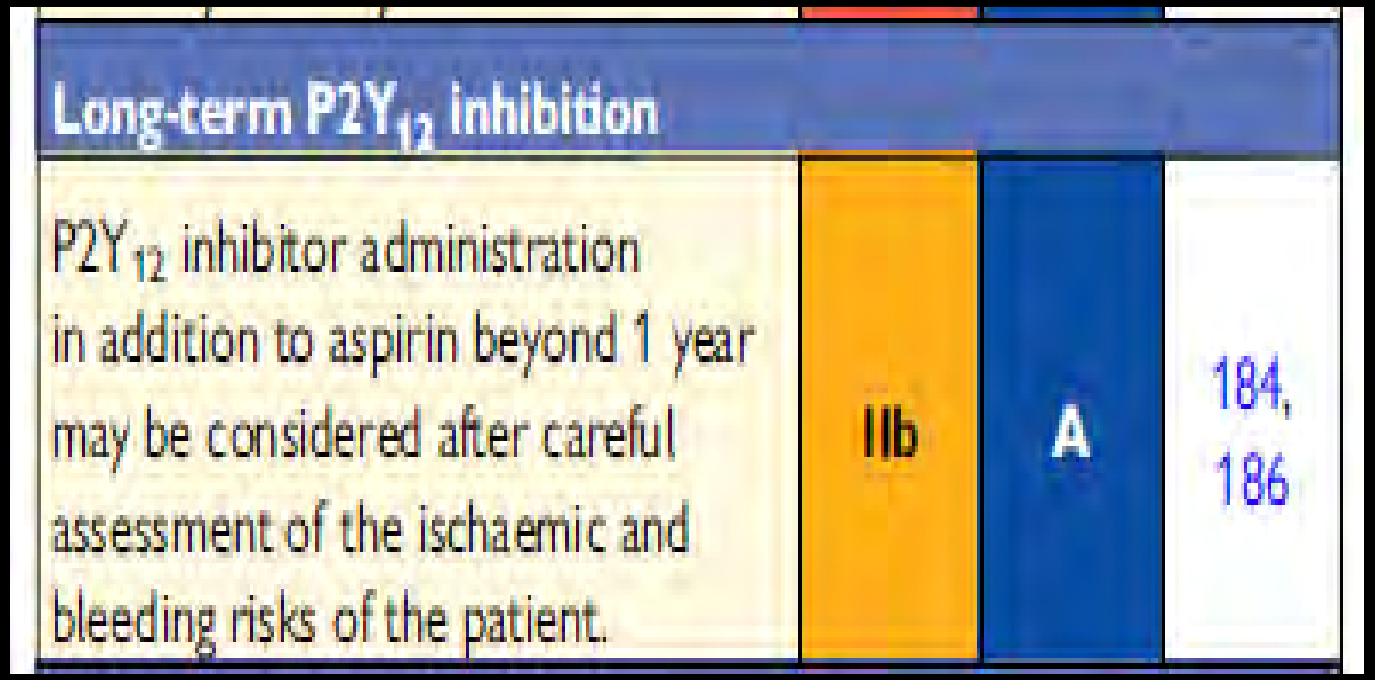
Short-term DAPT was associated with increased risk of ischemic events in younger patients, but not in elderly patients. However, short-term DAPT was associated with a reduced risk of major bleeding compared with long-te DAPT. Percutaneous coronary intervention with newer-generation DES requiring DAPT for shorter than 3 months may be an attractive option in the treatment of elderly patients.



Lee SY, Hong MK, Palmerini T, et al.

Short-Term Versus Long-Term Dual Antiplatelet Therapy After Drug-Eluting Stent Implantation in Elderly Patients: A Meta-Analysis of Individual Participant Data From 6 Randomized Trials. JACC Cardiovasc Interv 2018;Feb 14.

Oltre l'anno?



Long-term $P2Y_{12}$ inhibition			
$P2Y_{12}$ inhibitor administration in addition to aspirin beyond 1 year may be considered after careful assessment of the ischaemic and bleeding risks of the patient.	IIb	A	184, 186

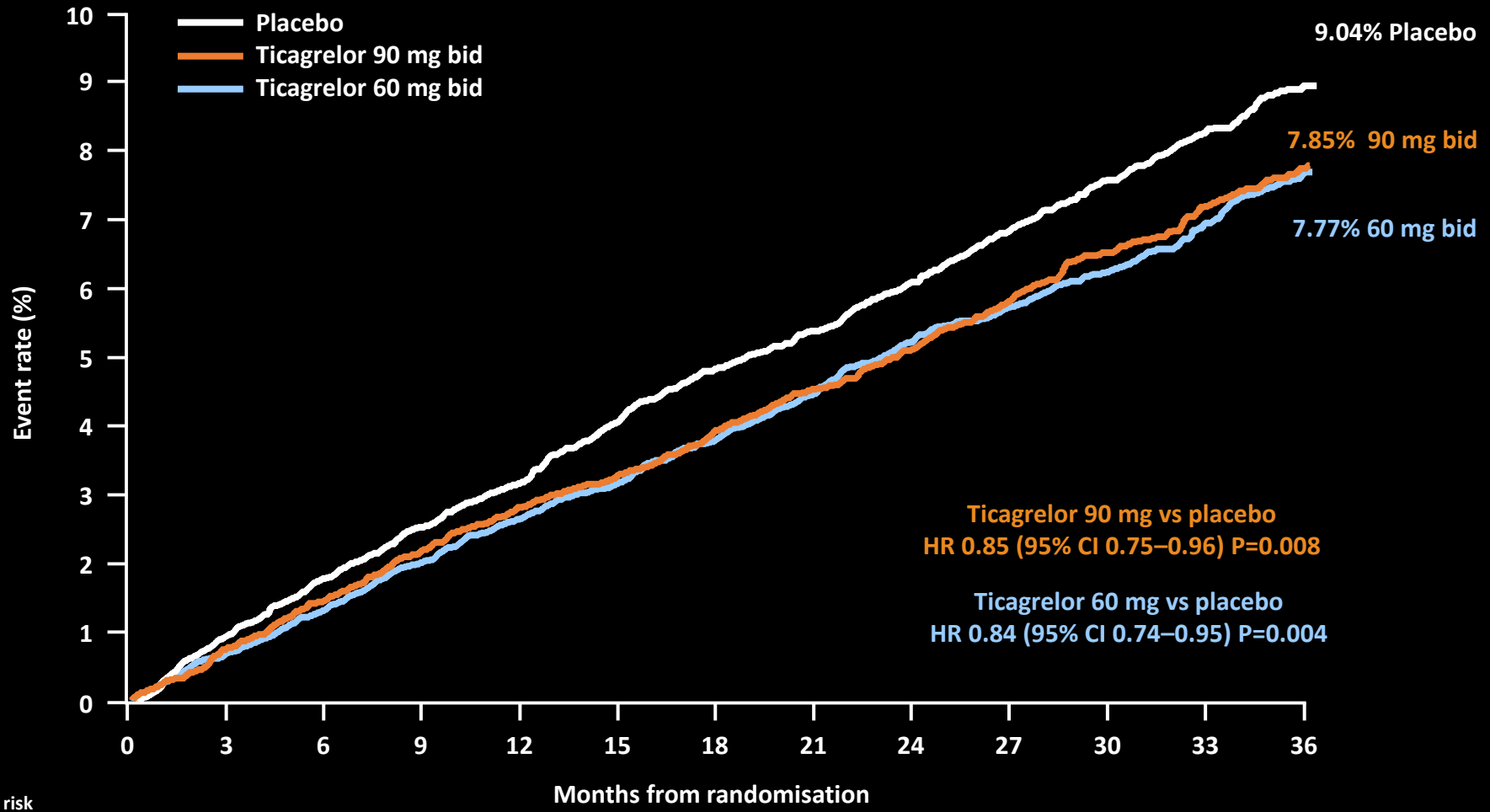
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Long-Term Use of Ticagrelor in Patients with Prior Myocardial Infarction

Marc P. Bonaca, M.D., M.P.H., Deepak L. Bhatt, M.D., M.P.H., Marc Cohen, M.D., Philippe Gabriel Steg, M.D., Robert F. Storey, M.D., Eva C. Jensen, M.D., Ph.D., Giulia Magnani, M.D., Sameer Bansilal, M.D., M. Polly Fish, B.A., Kyungah Im, Ph.D., Olof Bengtsson, Ph.Lic., Ton Oude Ophuis, M.D., Ph.D., Andrzej Budaj, M.D., Ph.D., Pierre Theroux, M.D., Mikhail Ruda, M.D., Christian Hamm, M.D., Shinya Goto, M.D., Jindrich Spinar, M.D., José Carlos Nicolau, M.D., Ph.D., Robert G. Kiss, M.D., Ph.D., Sabina A. Murphy, M.P.H., Stephen D. Wiviott, M.D., Peter Held, M.D., Ph.D., Eugene Braunwald, M.D., and Marc S. Sabatine, M.D., M.P.H., for the PEGASUS-TIMI 54 Steering Committee and Investigators*

PEGASUS-TIMI 54: Primary Endpoint



No. at risk													
Placebo	7067	6979	6892	6823	6761	6681	6508	6236	5876	5157	4343	3360	2028
90 mg bid	7050	6973	6899	6827	6769	6719	6550	6272	5921	5243	4401	3368	2038
60 mg bid	7045	6969	6905	6842	6784	6733	6557	6270	5904	5222	4424	3392	2055

CI, confidence interval; HR, hazard ratio

Bonaca MP *et al. N Engl J Med* 2015 [Epub ahead of print]

CHI TRATTARE DOPO 12 MESI CON DAPT

Pazienti con pregresso infarto ad alto rischio

1. ***Diabete mellito***
2. ***Infarti multipli***
3. ***Disfunzione renale***
4. ***Pregresso Bpac***
5. ***Arteriopatia periferica***
6. ***Fumatori***
7. ***Scompenso cardiaco a bassa F.E***

NO a pazienti ad alto rischio di sanguinamento

1. ***Rischio o pregressa emorragia intracranica***
2. ***Recente sanguinamento maggiore***
3. ***Diatesi emorragica***
4. ***Terapia anticoagulante***
5. ***Basso peso***
6. ***Anemia***

RIVALUTAZIONE DOPO 12 MESI DI DAPT

- ***Sanguinamenti recenti ?***
- ***Tolleranza?***
- ***Aderenza ?***
- ***Controindicazioni nuove? Relative?***
  (tipo insorgenza di F.A. che richieda anticoagulazione)

gastrointestinal bleeding is higher with DAPT in the form of prasugrel[23] or ticagrelor[82] as compared to clopidogrel. The short- and long-term safety profile of PPIs has been well-established.[79] Impaired magnesium absorption with PPIs has been reported only from studies in which patients had received a PPI for at least 1 year.[83] Magnesaemia monitoring is recommended at follow-up, especially for longer than 1 year of therapy.

Type, dose of P2Y$_{12}$ inhibitor, and duration of treatment: The type and dose of P2Y$_{12}$ inhibitor are well-established according to the various settings of CAD. Previous intracranial haemorrhage or ongoing bleeds are common contraindications for prasugrel and ticagrelor, while prasugrel should be given with caution in patients ≥75 years of age or with a body weight <60 kg. Patients with previous stroke or transient ischaemic attack (TIA) may derive harm from prasugrel instead of clopidogrel.[23] Prior stroke is a marker of frailty and of subsequent risk of haemorrhagic stroke, especially during the first year thereafter. Switching from prasugrel or ticagrelor to clopidogrel is a common practice, especially in cases of minor bleeding or in patients with low platelet reactivity, a marker of major bleeding risk.[56,84,85] There are no properly powered randomized data on the long-term safety or efficacy of 'switching' patients treated for weeks or months with a P2Y$_{12}$ inhibitor to a different P2Y$_{12}$ inhibitor. Therefore, this practice is generally discouraged.

Switching between oral P2Y$_{12}$ inhibitors

Recommendations	Class[a]	Level[b]
In patients with ACS who were previously exposed to clopidogrel, switching from clopidogrel to ticagrelor is recommended early after hospital admission at a loading dose of 180 mg irrespective of timing and loading dose[c] of clopidogrel, unless contraindications to ticagrelor exist.[20]	I	B
Additional switching between oral P2Y$_{12}$ inhibitors may be considered in cases of side effects/drug intolerance according to the proposed algorithms.	IIb	C

ACS = acute coronary syndrome.
[a]Class of recommendation.
[b]Level of evidence.
[c]Contraindications for ticagrelor: previous intracranial haemorrhage or ongoing bleeds.

Measures to minimize bleeding while on dual antiplatelet therapy

Recommendations	Class[a]	Level[b]
Radial over femoral access is recommended for coronary angiography and PCI if performed by an expert radial operator.[43,44]	I	A
In patients treated with DAPT, a daily aspirin dose of 75–100 mg is recommended.[45–47,51,52]	I	A
A PPI in combination with DAPT[c] is recommended.[70,79,86,87]	I	B
Routine platelet function testing to adjust antiplatelet therapy before or after elective stenting is not recommended.[58–60]	III	A

DAPT = dual antiplatelet therapy; PCI = percutaneous coronary intervention; PPI proton pump inhibitor.
[a]Class of recommendation.
[b]Level of evidence.
[c]While the evidence that a PPI does not increase the risk of cardiovascular events was generated with omeprazole, based on drug–drug interaction studies, omeprazole and esomeprazole would appear to have the highest propensity for clinically relevant interactions, while pantoprazole and rabeprazole have the lowest.

Aggiunta di NOAC alla DAPT nel post-infarto, rischio/beneficio più favorevole con STEMI che con NSTEMI

Sabato 24 Febbraio 2018 *G.O.*

Se il ridotto rischio ischemico derivante dall'aggiunta di un nuovo anticoagulante orale (NOAC) agli antipiastrinici nei pazienti con sindrome coronarica acuta (ACS) valga l'aumento del rischio di sanguinamento maggiore può dipendere dal tipo di ACS. Lo suggerisce una meta-analisi condotta da ricercatori italiani e pubblicata online su "JAMA Cardiology".

PUNTI CHIAVE DA RICORDARE PER LA DAPT 2018

@ Il beneficio della DAPT oltre ai 12 mesi è fortemente dipendente dalla pregressa storia cardiovascolare (IMA-SCA / stabile CAD) per cui è necessario un approccio INDIVIDUALIZZATO che ottimizzi il rapporto tra rischio ischemico/emorragico

@ Clopidogrel è da considerare di default in pazienti con CAD stabile sottoposti a PTCA; in quelli con indicazione a TAO/NAO ed in quelli con SCA con controindicazioni al Ticagrelor o Prasugel

@ Nei pazienti con CAD stabile sottoposti a PTCA, indipendentemente dal tipo di Stent metallico impiantato, la durata della DAPT è di 1-6 mesi; se il rischio ischemico prevale su quello emorragico, può essere considerata una DAPT più prolungata

PUNTI CHIAVE DA RICORDARE DAPT 2018

@ Per i pazienti con ACS, indipendentemente dalla strategia adottata (medica, ptca, bypass) la durata della Dapt è 12 mesi (6 mesi in pazienti ad alto rischio emorragico; oltre 12 mesi in chi ha tollerato la DAPT senza complicanze o nella malattia multivasale

@ Per pazienti sottoposti a chirurgia elettiva non cardiaca dopo impianto di Stent, deve trascorrere almeno 1 mese per la eventuale sospensione di DAPT; se chirurgia urgente, considerare tirofiban o eptifibatide

@ La triplice terapia, se necessaria, va limitata a 6 mesi con clopidogrel ed è più efficace nello STEMI che nel NSTEMI

Intellettuale
Gillo Dorfles,
106 anni,

GILLO DORFLES 107 anni e 11 mesi: ***Medico, Critico d'Arte, Pittore, Filosofo, Scrittore***