6° CONVEGNO
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1-2 APRILE 2022
BOLOGNA Zanhotel Europa

IN COLLABORAZIONE CON
ASSOCIAZIONE ITALIANA PAZIENTI ANTICOAGULATI BOLOGNA

START Antiplatelet

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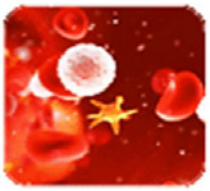

A MULTICENTER OBSERVATIONAL PROSPECTIVE STUDY TO ASSESS THE RISK-BENEFITS OF ANTITHROMBOTIC THERAPY IN Acute Coronary Syndrome PATIENTS

Inizio Arruolamento: gennaio 2014

Aggiornamento marzo 2022

Sono stati arruolati **2808** pazienti

È stato completato il **follow-up** su **1957** pazienti a 6 mesi e 12 mesi tramite contatto telefonico o con visita clinica a seconda dell'organizzazione dei vari reparti.

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RESEARCH ARTICLE

Antiplatelet treatment in acute coronary syndrome patients: Real-world data from the START-Antiplatelet Italian Registry

Rossella Marcucci[1], Giuseppe Patti[2], Paolo Calabrò[3], Anna Maria Gori[1]*, Guido Grossi[1], Plinio Cirillo[4], Vittorio Pengo[5], Paolo Gresele[6], Pasquale Pignatelli[7], Emilia Antonucci[8], Carlo di Mario[1], Serafina Valente[9], Gualtiero Palareti[8]

PlosOne, 2019

In conclusion, the START antiplatelet registry document that aspirin plus ticagrelor is the first choice of antiplatelet, but the 'old' clopidogrel is yet prescribed in a significant proportion of ACS patients. In the real world, the datum of a reduced mortality associated with the use of ticagrelor was confirmed and was present also for prasugrel. On the other hand, no significant higher prevalence of major bleeding events in patients treated with the more potent P2Y12 antiplatelets was documented.

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RESEARCH ARTICLE

Prevalence and predictors of dual antiplatelet therapy prolongation beyond one year in patients with acute coronary syndrome

Giuseppe Patti[1]*, Ilaria Cavallari[1], Emilia Antonucci[2], Paolo Calabrò[3], Plinio Cirillo[4], Paolo Gresele[5], Gualtiero Palareti[2], Vittorio Pengo[6], Pasquale Pignatelli[7], Elisabetta Ricottini[1], Rossella Marcucci[8]

PlosOne 2107

According to our data, a low bleeding risk seems to weight more than a high ischemic risk in the current decision for DAPT prolongation. It will be intriguing to evaluate how the predictors of DAPT continuation will change after the introduction of 60 mg ticagrelor for long-term prevention of atherothrombotic events after MI.

Epidemiology and Management of Patients With Acute Coronary Syndromes in Contemporary Real-World Practice: Evolving Trends From the EYESHOT Study to the START-ANTIPLATELET Registry

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Paolo Calabrò, MD, PhD[1], Felice Gragnano, MD[1], Marco Di Maio, MD[1], Giuseppe Patti, MD[2], Emilia Antonucci, CRC[3], Plinio Cirillo, MD, PhD[4], Paolo Gresele, MD, PhD[5], Gualtiero Palareti, MD[3], Vittorio Pengo, MD[6], Pasquale Pignatelli, MD[7], Mauro Pennacchi, MD[8], Antonino Granatelli, MD[8], Stefano De Servi, MD[9], Leonardo De Luca, MD, PhD[8], Rossella Marcucci, MD[10]; for EYESHOT Study and Start Antiplatelet Register*

Angiology, 2018

We observed a marked increase in the use of interven tional and pharmacological strategies recommended b guidelines, including a higher rate of PCI, DES implantation with a significant shift to the prescription of novel P2Y1 inhibitors. These changes might have positively influence in-hospital outcomes, resulting in a reduction in fatal an nonfatal events.

Impact of Chronic Renal Failure on Ischemic and Bleeding Events at 1 Year in Patients With Acute Coronary Syndrome (from the Multicenter START ANTIPLATELET Registry)

Giuseppe Patti, MD[a,*], Elisabetta Ricottini, MD[a], Antonio Nenna, MD[a], Ilaria Cavallari, MD[a], Emilia Antonucci, ScD[b], Paolo Calabrò, MD[c], Plinio Cirillo, MD[d], Paolo Gresele, MD[e], Gualtiero Palareti, MD[b], Vittorio Pengo, MD[f], Pasquale Pignatelli, MD[g], Antonio Bisignani, MD[h], and Rossella Marcucci, MD[i]

Am J cardiol, 2018

baseline CRF is an independent predictor of poorer outcome at 1 year; the predictive role was even greater in patients with severe decline of renal function or when CRF was associated with anemia. The absolute increase of adverse events related to renal failure was prominent for ischemic compared with major bleeding events.

Gender-Related Differences in Antiplatelet Therapy and Impact on 1-Year Clinical Outcome in Patients Presenting With ACS: The START ANTIPLATELET Registry

Angiology
2019, Vol. 70(3) 257-263

DOI: 10.1177/0003319718783866
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Plinio Cirillo, MD, PhD[1], Luigi Di Serafino, MD, PhD[1], Giuseppe Patti, MD[2], Emilia Antonucci, BSc[3], Paolo Calabrò, MD, PhD[4], Paolo Gresele, MD, PhD[5], Gualtiero Palareti, MD[3], Vittorio Pengo, MD[6], Pasquale Pignatelli, MD[7], and Rossella Marcucci, MD[8]

Angiology, 2019

The main findings of the present study are as follows: (1) in patients with ACS, DAPT was more often prescribed in men compared to women; (2) when prescribed, DAPT with ticagrelor was the most prevalent strategy, regardless of gender, and DAPT with clopidogrel was significantly preferred in women compared to men, while DAPT with prasugrel was more often used in men; (3) these gender-related differences in terms of DAPT combination were not associated with any significant difference in 1-year clinical outcome.

Effect of Body Mass Index on Ischemic and Bleeding Events in Patients Presenting With Acute Coronary Syndromes (from the START-ANTIPLATELET Registry)

Paolo Calabrò, MD, PhD[a,b,*], Elisabetta Moscarella, MD[a,b], Felice Gragnano, MD[a,b], Arturo Cesaro, MD[a,b], Pia Clara Pafundi, PhD[c], Giuseppe Patti, MD[d,e], Ilaria Cavallari, MD[e], Emilia Antonucci, MD[f], Plinio Cirillo, MD[g], Pasquale Pignatelli, MD[h], Gualtiero Palareti, MD[f], Ferdinando Carlo Sasso, MD, PhD[c], Vittorio Pengo, MD[i], Paolo Gresele, MD[j], Rossella Marcucci, MD[k], the START-ANTIPLATELET collaborators, Marzia Conte[l], Fabio Fimiani[l], Luigi Di Serafino, MD[m], Maurizio del Pinto, MD[n], Gentian Denas, MD[o], Daniele Pastori, MD[p], Camilleri Eleonora, MD[q], and Tiziana Fierro, MD[n]

Am J Cardiol, 2019

In conclusion, our study conflicts the obesity paradox in real-world ACS population, not confirming an independent association between BMI and adverse outcomes after confounders adjustment. Our results suggest that the better outcomes in obese patients may be related to a more favorable clinical profile (rather than the BMI per se) that may confer protection against adverse events, and prompt the treating physicians toward a more aggressive secondary prevention treatment, including a more intense and prolonged antiplatelet therapy.

Optimal Medical Therapy on Top of Dual-Antiplatelet Therapy: 1-Year Clinical Outcome in Patients With Acute Coronary Syndrome: The START Antiplatelet Registry

Plinio Cirillo, MD, PhD[1], Luigi Di Serafino, MD, PhD[1], Vittorio Taglialatela, MD[1], Paolo Calabrò, MD, PhD[2], Emilia Antonucci, BSc[3], Paolo Gresele, MD, PhD[4], Gualtiero Palareti, MD[3], Giuseppe Patti, MD[5], Vittorio Pengo, MD[6], Pasquale Pignatelli, MD[7], and Rossella Marcucci, MD[8]

Angiology, 2020

In conclusion, OMT is associated with a better clinical outcome in patients presenting with ACS, reducing indeed the incidence of both MACE and NACE at 12 months. The effects on the clinical end points of drug modification during the follow-up are debatable.

Peripheral arterial disease has a strong impact on cardiovascular outcome in patients with acute coronary syndromes: from the START Antiplatelet registry

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Int J Cardiol 2021

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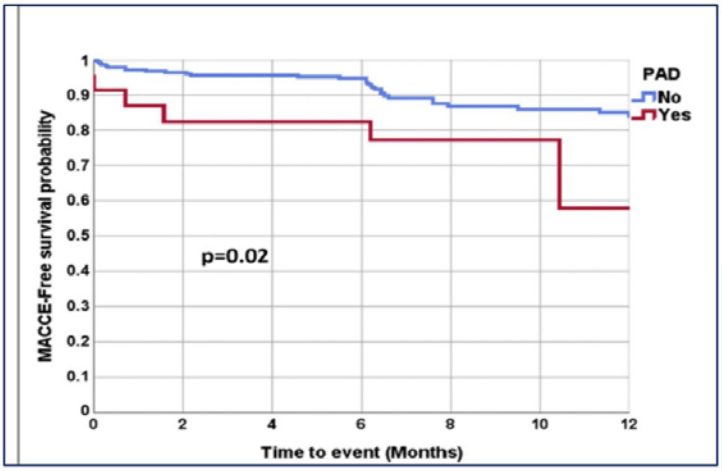
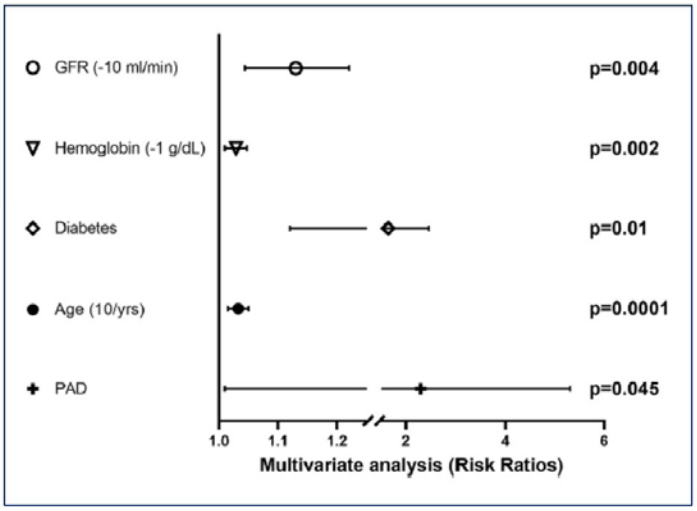
Baseline characteristics of the study population.

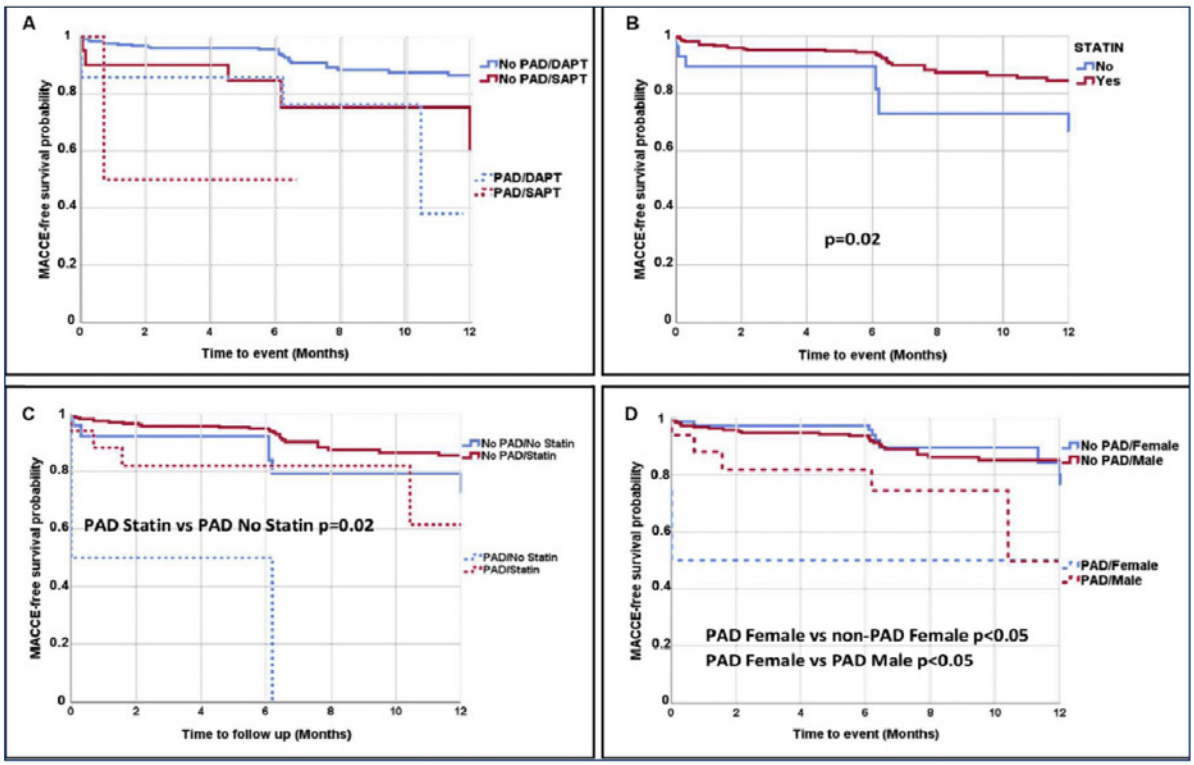
	NO PAD	PAD	p
n (%)	1339 (92.9)	103 (7.1)	
Age, yrs. (mean, sd)	66.2 (12.6)	71.8 (10.6)	**<0.0001**
Females, n (%)	370 (27.6)	32 (31.1)	0.494
Hypertension, n (%)	918 (68.6)	93 (90.3)	**<0.0001**
Hypercholesterolemia, n (%)	702 (52.4)	68 (66.0)	**0.008**
Diabetes, n (%)	330 (24.6)	53 (51.5)	**<0.0001**
Obesity (BMI ≥ 30%), n (%)	258 (19.3)	29 (28.2)	**0.040**
Smoke, n(%)	665 (49.7)	52 (50.5)	0.919
CVD Familiarity, n (%)	382 (28.5)	26 (25.2)	0.570
Previous MI, n (%)	238 (17.9)	25 (24.3)	0.111
Previous PCI, n (%)	257 (19.2)	24 (23.3)	0.303
Previous TIA, n (%)	37 (2.8)	8 (7.8)	**0.012**
Previous IS, n (%)	42 (3.1)	12 (11.7)	**<0.0001**
Previous MB, n (%)	30 (2.2)	2 (1.9)	1

Clinical outcomes.

	Non PAD	PAD	p
MACCE, n (%)	77 (8.6)	12 (15.1)	**0.044**
CVD	16 (20.8)	5 (41.6)	
Re-MI	19 (24.7)	3 (27.3)	
Stroke	6 (7.8)	0 (0.0)	
TIA	2 (2.6)	0 (0.0)	
TVR	24 (31.2)	2 (18.2)	
Ischemic Compl	10 (13.0)	2 (18.2)	
NACE, n (%)	94 (10.5)	14 (19.1)	**0.049**
ICH	9 (9.6)	0 (0.0)	
GIB	7 (7.4)	2 (15.4)	
RPH	1 (1.1)	0 (0.0)	







Clopidogrel versus ticagrelor in high-bleeding risk patients presenting with acute coronary syndromes: insights from the multicenter START-ANTIPLATELET registry

Felice Gragnano[1,2] · Elisabetta Moscarella[1,2] · Paolo Calabrò[1,2] · Arturo Cesaro[1,2] · Pia Clara Pafundi[3] · Alfonso Ielasi[4] · Giuseppe Patti[5] · Ilaria Cavallari[6] · Emilia Antonucci[7] · Plinio Cirillo[8] · Pasquale Pignatelli[9] · Gualtiero Palareti[7] · Francesco Pelliccia[10] · Carlo Gaudio[10] · Ferdinando Carlo Sasso[3] · Vittorio Pengo[11] · Paolo Gresele[12] · Rossella Marcucci[13] on behalf of the START-ANTIPLATELET Collaborators

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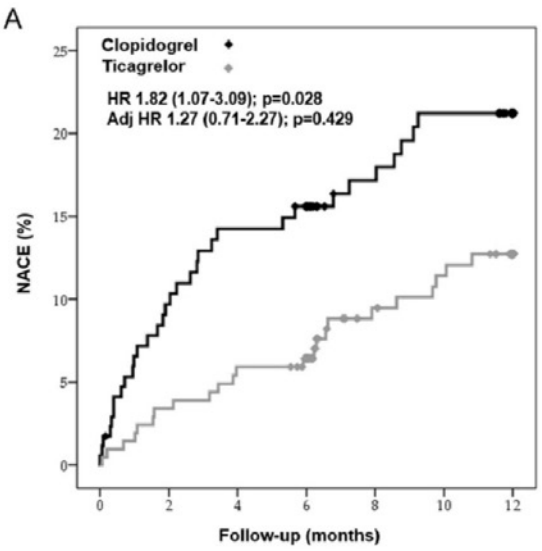
Patients were considered at HBR if at least one of the following criteria was present: (1) clinical indication for long-term oral anticoagulation; (2) previous bleeding requiring medical attention and/or hospitalization; (3) age ≥ 75 years; (4) platelet count < 100,000/mm^3; (5) documented anemia defined as repeated hemoglobin levels < 11 g/dL; (6) history of chronic or recent transfusion (within 1 month before inclusion in the registry); (7) history of previous stroke; (8) severe or end-stage renal impairment (creatinine clearance < 30 mL/min); and (9) PRECISE-DAPT ≥ 25

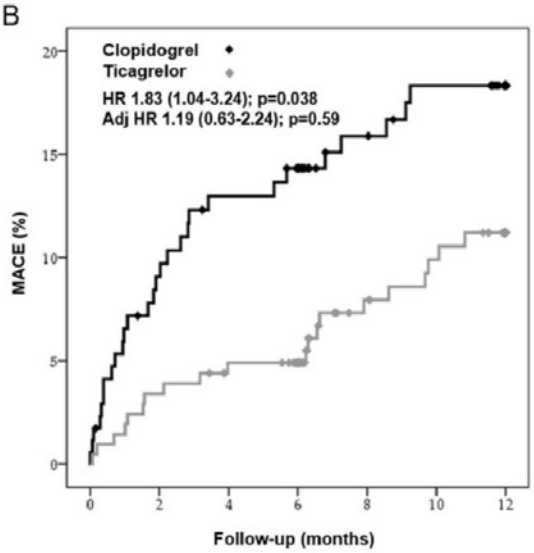
n= 553

High Bleeding Risk Patients

NACE



MACE



At 1 year follow-up

In conclusion, our study confirms that clopidogrel, rather than potent P2Y12 inhibitors, is frequently used of as part of DAPT in real-world HBR patients presenting with ACS. After adjustment for confounders, no difference for ischemic and bleeding events was observed in HBR patients on clopidogrel versus ticagrelor. Our findings suggest that DAPT duration, more than DAPT type, might impact on clinical outcomes in HBR patients and should be appropriately tailored according to patients' risk profile.

Ischemic and bleeding risk by type 2 diabetes clusters in patients with acute coronary syndrome

Ilaria Cavallari[1] · Ernesto Maddaloni[2] · Felice Gragnano[3] · Giuseppe Patti[4] · Emilia Antonucci[5] · Paolo Calabrò[3] · Plinio Cirillo[6] · Paolo Gresele[7] · Gualtiero Palareti[5] · Vittorio Pengo[8] · Pasquale Pignatelli[9] · Rossella Marcucci[10] on behalf of the START-ANTIPLATELET collaborators

Int Emerg Med 2021

	Incidence rate per 100 person-years [95% CI]			p^*
	No DM	NIRDM	IRDM	
Primary net composite endpoint	14.0 [11.5–17.1]	11.7 [7.7–18.0]	39.4 [19.7–78.8]	**0.007**
MACE	3.9 [2.7–5.6]	7.1 [4.1–12.2]	12.7 [4.1–39.5]	**0.039**
Any bleeding	10.4 [8.2–13.0]	6.0 [3.3–10.8]	24.1 [10.0–57.9]	**0.028**
Major bleeding	1.8 [1.0–3.1]	2.7 [1.1–6.4]	4.2 [0.6–29.9]	0.56
TVR	1.1 [0.5–2.2]	4.3 [2.2–8.6]	4.2 [0.6–29.9]	**0.009**
All-cause mortality	2.5 [1.6–3.9]	4.9 [2.5–9.3]	4.2 [0.6–29.8]	0.23

In conclusion, this prospective analysis of patients with ACS shows heterogeneity in the risk of adverse events related to diabetes. Compared to patients without diabetes, a stepwise but not significant increase in ischemic events was demonstrated from patients on oral glucose-lowering agents to those on insulin treatment, whereas the predisposition to bleeding complications was selectively observed in the latter. Pathophysiological correlates of these findings may represent an important area of investigation.

Prevalence and clinical implications of eligibility criteria for prolonged dual antithrombotic therapy in patients with PEGASUS and COMPASS phenotypes: Insights from the START-ANTIPLATELET registry

Arturo Cesaro [a,b], Felice Gragnano [a,b], Paolo Calabrò [a,b,*], Elisabetta Moscarella [a,b], Francesco Santelli [c], Fabio Fimiani [d], Giuseppe Patti [e], Ilaria Cavallari [f], Emilia Antonucci [g], Plinio Cirillo [h], Pasquale Pignatelli [i], Gualtiero Palareti [g], Francesco Pelliccia [j], Eduardo Bossone [k], Vittorio Pengo [l], Paolo Gresele [m], Rossella Marcucci [n], on behalf of the START-ANTIPLATELET collaborators

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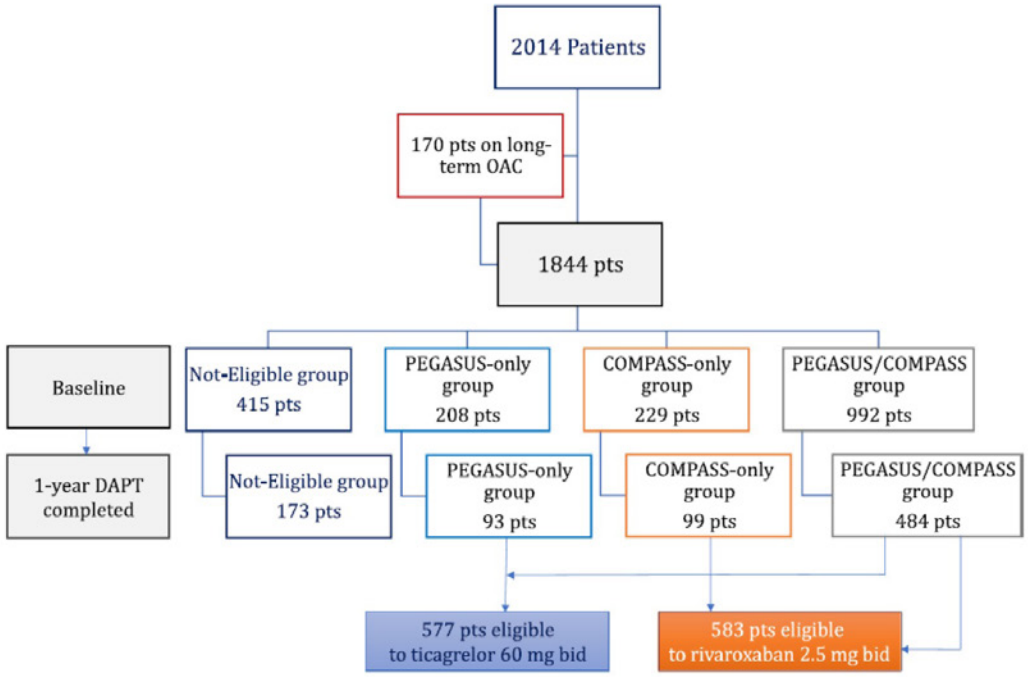
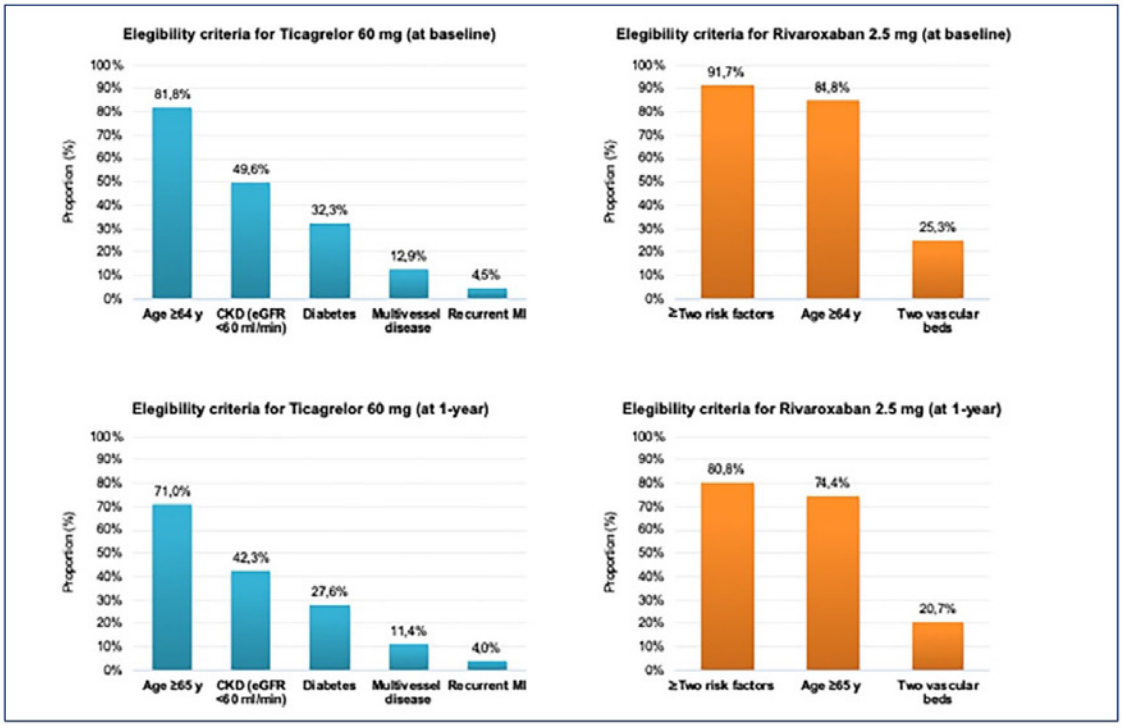




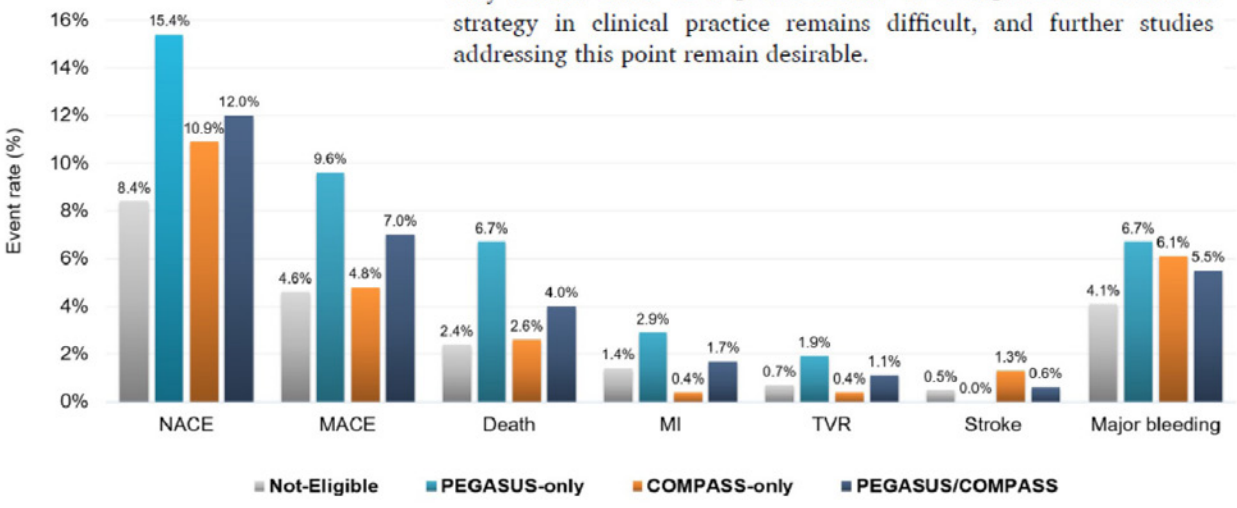
follows. First, at 1-year follow-up, approximately 60% of the patients in our study were potentially eligible for prolonged antithrombotic therapy with low-dose ticagrelor or low-dose rivaroxaban. In our cohort, more than 60% of patients met the eligibility criteria for ticagrelor 60 mg twice daily and rivaroxaban 2.5 mg twice daily after 1-year DAPT. Second, age and recurrent MI were the most and least common eligibility criteria for ticagrelor 60 mg twice daily, respectively. Moreover, the presence of two or more risk factors and polyvascular disease were the most and least frequent eligibility criteria, respectively, for rivaroxaban 2.5 mg twice daily. Third, on admission, the COMPASS and PEGASUS criteria might be used to identify upfront patients who are at higher risk of cardiovascular events at follow-up and worse outcomes. Our study reproduces a real-life scenario when the clinician is faced with a choice of whether to continue and how to continue antithrombotic therapy 1 year after DAPT.

60%
Age /MI for tica 60

2 factors + PAD for riva 2.5

1 –year f-up clinical outcomes

In a contemporary real-world cohort of patients with ACS, a substantial proportion of patients are potentially eligible at 1 year to prolong antithrombotic therapy with ticagrelor 60 mg twice daily or rivaroxaban 2.5 mg twice daily. The identification of PEGASUS and COMPASS phenotypes at baseline based on drug eligibility criteria may help to select patients at higher risk of ischemic events who may benefit of more intense treatment. The identification of post-ACS patients who may benefit more of a PEGASUS-like vs COMPASS-like treatment strategy in clinical practice remains difficult, and further studies addressing this point remain desirable.



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