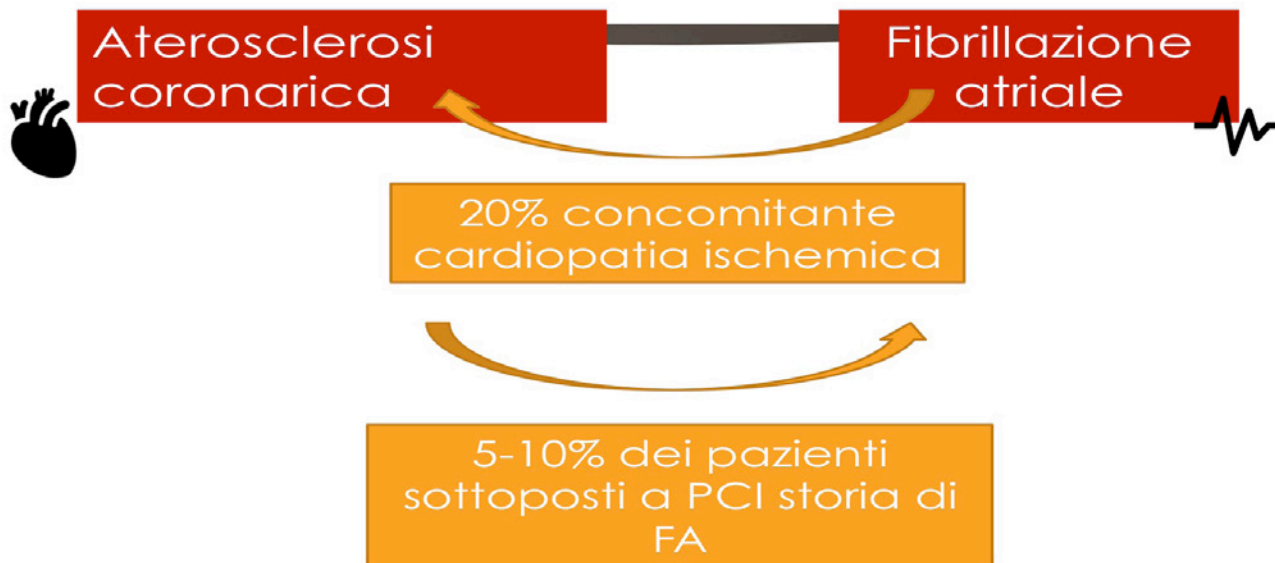


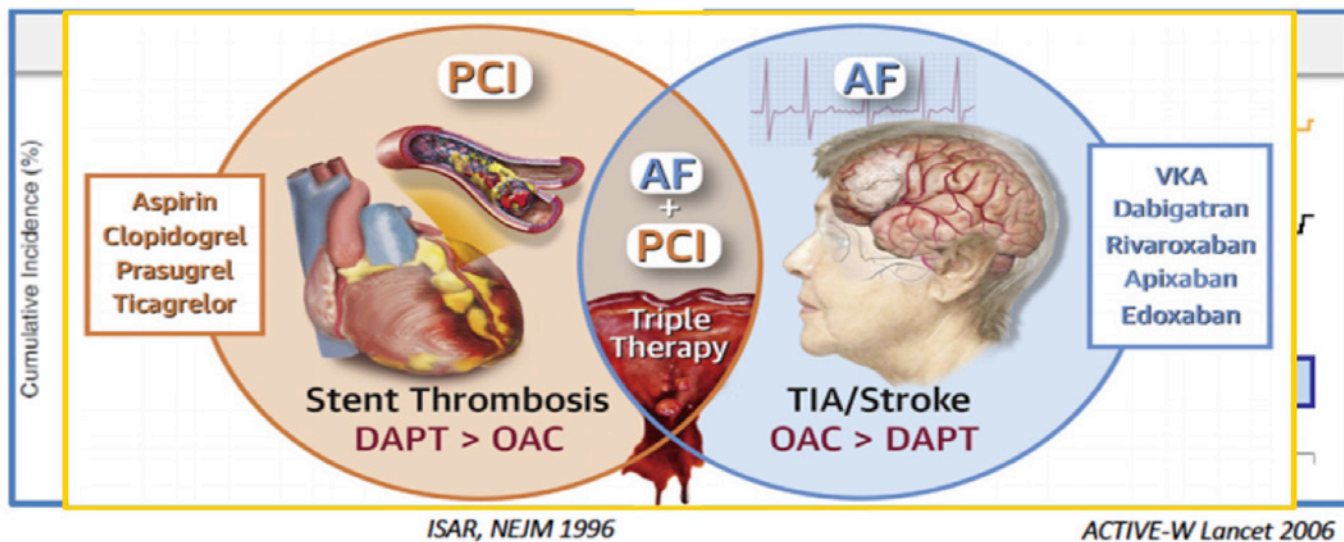
Duplice/triplice trattamento antitrombotico in pazienti cin SCA e FA

Rossella Marcucci (Firenze)

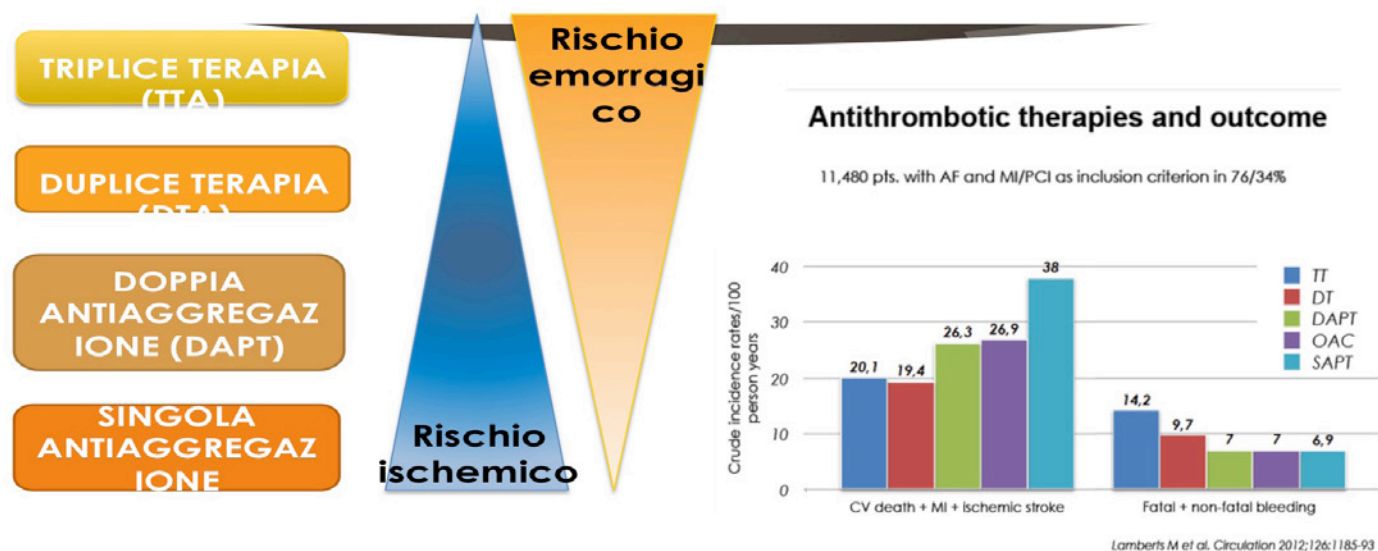
Epidemiologia



Razionale triplice terapia



Razionale triplice terapia





THE PROBLEM.....



**Alternative to STANDARD TRIPLE THERAPY (TT):
AVK + ASA + Clopidogrel**



Change of DRUG:

NAO vs AVK

. *Augustus (apixaban)*

Reduced-dose NAO vs AVK

. *Pioneer (rivaroxaban)*



ESC

European Society
of Cardiology

Europace

doi:10.1093/europace/euy174

EHRA CONSENSUS DOCUMENT

**2018 EHRA, ESC WG Thrombosis, EAPCI, ACCA, HRS, APHRS, LAHRS,
CASSA Consensus Document**

NOACs as part of TAT or DAT are safer than VKA (e.g. Warfarin) with respect to bleeding risk and is the preferred option in the absence of contraindications to use of these drugs.



Lip GYH et al. Europace 2018

**Alternative to STANDARD TRIPLE THERAPY (TT):
AVK + ASA + Clopidogrel**



Change of DRUG:

NAO vs AVK

. *Augustus*

Low-dose NAO vs AVK

. *Pioneer*

Change of STRATEGY:

DURATION TT

. *Isar Triple*

DUAL vs TRIPLE (~~ASA~~)

. *Woest* (AVK)

. *Pioneer* (reduced dose NAO)

. *Redual* (standard dose NAO)

. *Augustus* (standard dose NAO)

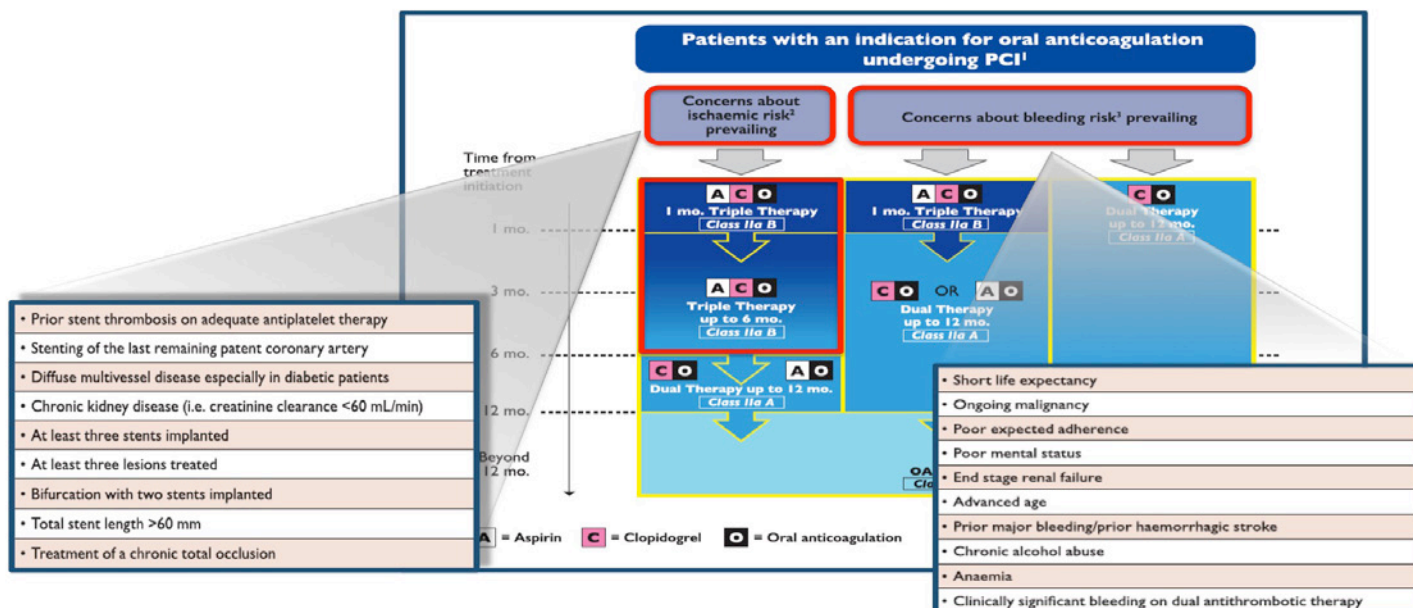
. *Entrust* (standard dose NAO)

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2017 ESC focused update on dual antiplatelet therapy in coronary artery disease developed in collaboration with EACTS



Antithrombotic Therapy in Patients With Atrial Fibrillation Treated With Oral Anticoagulation Undergoing Percutaneous Coronary Intervention

A North American Perspective—2018 Update

July 31, 2018

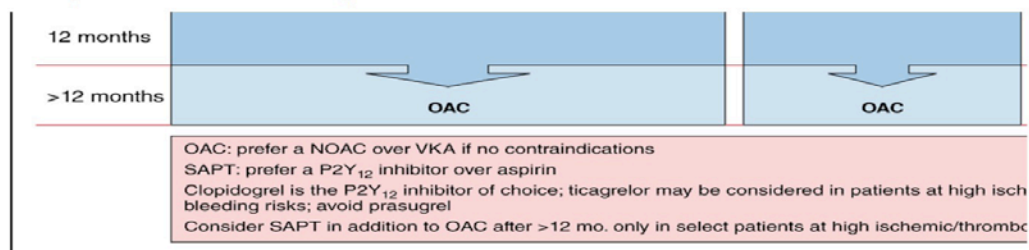


Figure 2. Management of antiplatelet therapy in patients with atrial fibrillation undergoing percutaneous an oral anticoagulant (OAC): 2018 North American expert consensus update.

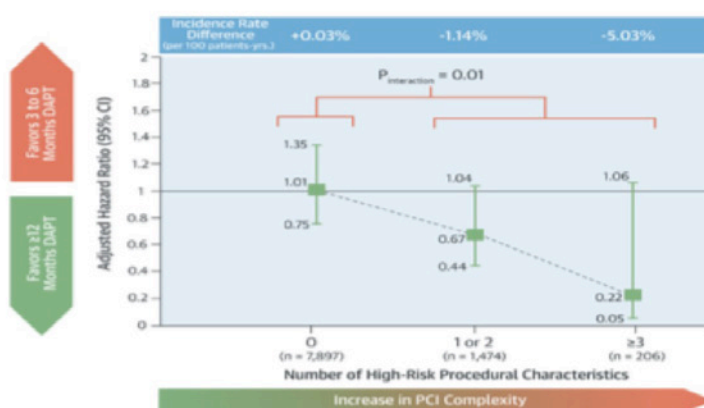
A double-therapy regimen immediately after hospital discharge should be considered for most patients (default strategy). A single antiplatelet therapy (SAPT) regimen should be considered for selected patients at high ischemic/thrombotic and low bleeding risks. Clopidogrel remains the P2Y₁₂ inhibitor of choice. Discontinuation of SAPT at 1 month is reasonable for patients at high ischemic/thrombotic and low bleeding risks, whereas continuation with SAPT (in addition to OAC) may be reasonable for patients at high ischemic/thrombotic and low bleeding risks. DAPT indicates dual antiplatelet therapy.

CONCERNS.....



None of the RCT was powered to detect differences in ischemic outcome particularly stent thrombosis, which albeit rare, is associated with high morbidity/mortality

Efficacy and Safety of Dual Antiplatelet Therapy After Complex PCI



- 3 vessel treated
- ≥ 3 stents implanted
- ≥ 3 lesion treated
- Bifurcations with 2 stents
- ≥ 60 mm total stent length
- Chronic total occlusion

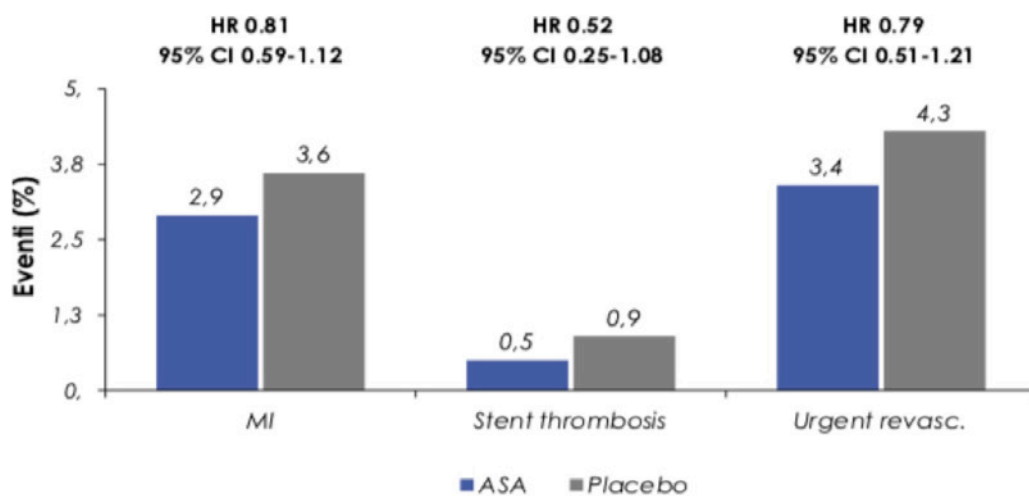
(J Am Coll Cardiol 2016;68:1851-64)

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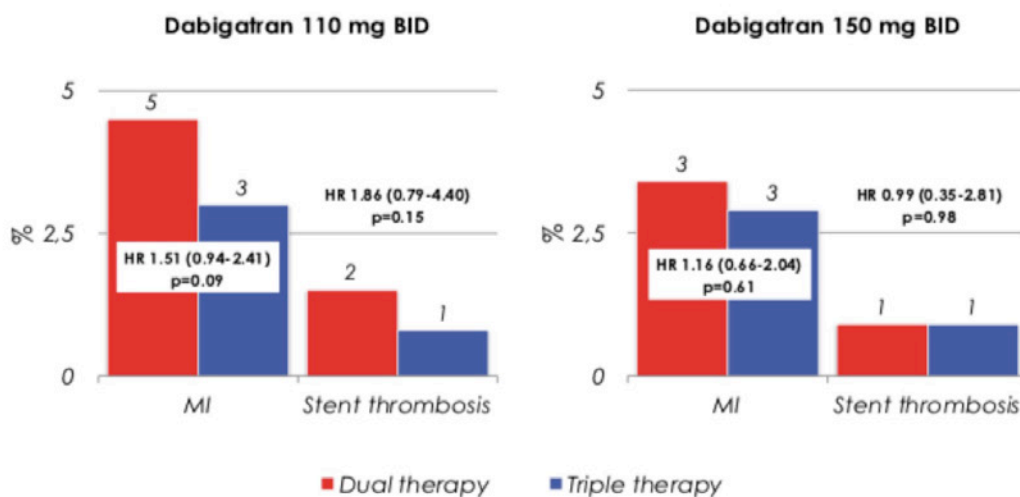
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Augustus trial: coronary events



Lopes RD et al. N Engl J Med 2019;doi:10.1056/NEJMoa1817083

Re dual PCI trial: coronary events



Cannon CP et al. N Engl J Med 2017;377:1513-248

ACS vs Elective PCI

Clopidogrel vs new P2Y12 inhibitors

	PIONEER AF-PCI	REDUAL-PCI	AUGUSTUS	ENTRUST AF-PCI
NOAC	Rivaroxaban	Dabigatran	Apixaban	Edoxaban
Patients	2124	2725	4614	1500
ACS pts	1096 (51.6%)	1375 (50.5%)	ACS+PCI : 1714 (37%) Medically managed ACS: 1097 (23.9%)	777 (52%)
Ticagrelor	92 (4.3%)	327 (12%)	280 (6,2%)	106 (7.1%)
Prasugrel	28 (1.3%)	---	51 (1.1%)	8 (<1%)

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study. In contrast, ticagrelor was significantly associated with 16% lower risk for the primary composite outcome of cardiovascular death, myocardial infarction, or stroke, compared to clopidogrel in the aforementioned randomized PLATO trial.²⁷ Despite multivariable statistical adjustments, our findings may merely reflect that patients receiving ticagrelor, at the choice of the investigator, were at higher risk for thromboembolic and bleeding events, e.g. because of clinical and procedural complexity factors.

Despite the higher bleeding risk observed in patients treated with ticagrelor, the benefits of both dabigatran 110 mg and 150 mg dual therapy compared with warfarin triple therapy were consistent across the ticagrelor and clopidogrel subgroups. In patients with AF where more intensive platelet inhibition is warranted, e.g. after an ACS with high risk for new coronary events, or in patients who are non-responders to clopidogrel and thereby at high risk for thromboembolic events,²⁸ dabigatran dual therapy with ticagrelor might be an attractive alternative after PCI as recently suggested in a North American consensus document.¹⁰ Notably the trend for higher risk for myocardial infarction and stent thrombosis in patients treated with dabigatran 110 mg dual therapy compared with warfarin triple therapy seemed attenuated in those patients receiving ticagrelor,

with the caveat that this finding is based on a patients.

Approximately 10% of patients in the warfarin triple therapy group received ticagrelor in combination with aspirin in the present study. Albeit based on modest numbers, the higher bleeding rates in these patients support current guideline recommendations to avoid newer P2Y12 inhibitors as part of oral triple therapy.^{6,7,9,10} In addition, in previous small observational studies,³¹ VKA or NOAC triple therapy with ticagrelor has been associated with up to three times higher risk for bleeding compared to triple therapy with clopidogrel.

This report has limitations. Subgroup analyses, which were not specified, should always be interpreted cautiously. The individual subgroups were not powered for formal statistical analysis, and therefore the confidence intervals are wider than in the main study due to the smaller number of patients and events, especially in the relatively small subgroups receiving ticagrelor. Also, interaction between ticagrelor and aspirin was regarded as exploratory. The magnitude of increase in bleeding with ticagrelor compared to clopidogrel was smaller in the present study than in the randomized post-A

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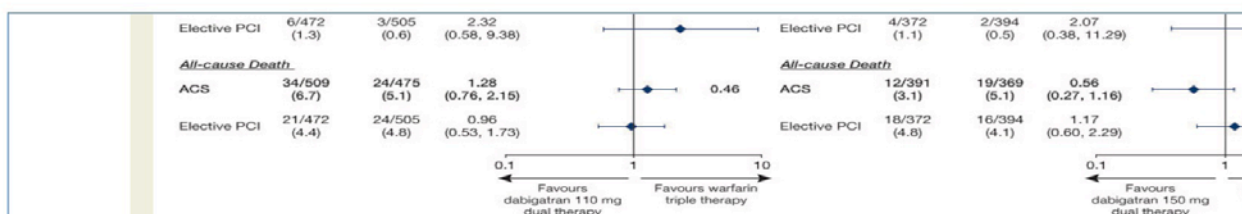


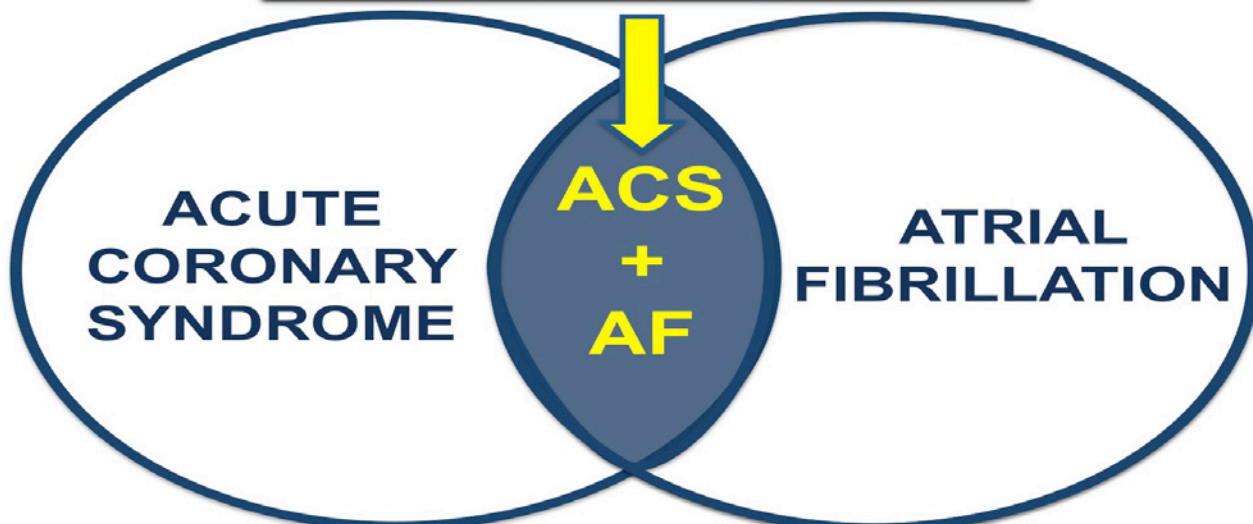
Figure 3 Death, thromboembolic events, and unplanned revascularization by percutaneous coronary intervention indication. ^aFrom Cox proportional hazard model stratified by age (elderly vs. non-elderly). ^bFor the comparison with dabigatran 150 mg dual therapy patients outside the USA were excluded. ^cFrom unstratified Cox proportional hazard model. ACS, acute coronary syndrome; CI, confidence interval; DTE, death or thromboembolic event (myocardial infarction, stroke, or systemic embolism); PCI, percutaneous coronary intervention.

and primary safety outcome incidences. Both dabigatran dual therapies were associated with substantially reduced risk of bleeding events compared with warfarin triple therapy without signs of interaction between study treatment and the indication for PCI (ACS or elective). The risk of the composite of death, thromboembolic events, or unplanned revascularization with dabigatran dual therapies seemed comparable to warfarin triple therapy in the ACS and elective PCI subgroups. While there was substantially less bleeding with dabigatran 110 mg dual therapy compared with warfarin triple therapy, numerically higher risks of myocardial infarction and stent thrombosis were observed in the ACS population, although the number of events was small and interaction *P*-values were non-significant. These differences should be interpreted with caution as the main RE-DUAL PCI study was not adequately powered for individual thromboembolic events,

and the results in the present analysis are based on numbers of patients and events within each subgroup. Dabigatran doses in the dual therapy groups have previously been evaluated for stroke prevention compared with warfarin in the RE-LY study,²⁶ dabigatran 150 mg was superior to warfarin for risk reduction in stroke, whereas dabigatran 110 mg was not superior to warfarin for stroke prevention. Thus, irrespective of the indication for PCI at the index event, dabigatran 150 mg dual therapy may be a more attractive option after PCI in patients with AF,⁹ whereas dabigatran 110 mg dual therapy should be considered in very elderly patients at increased bleeding risk. In the PIONEER-AF PCI trial,¹³ both dual therapy with dabigatran 15 mg once daily and triple therapy with rivaroxaban 15 mg daily also reduced clinically relevant bleeding events

Concerns...

Up to 21% of ACS patients



Schmitt J, Eur Heart J 2009

N=1,363 pts

The cumulative incidence of NACE and MACE was 1.7%, respectively. The incidence of NACE, MACE, adverse events in patients treated with old or novel P2Y₁₂ inhibitors during the whole hospitalisation and in patients who received a switch of oral antiplatelet therapies is shown in Figure 2A and Figure 2B.

SWITCHING AND CLINICAL EVENTS AT FOLLOW-UP
Clinical follow-up was completed in 1,284 (94.2%) patients, a mean of 42±11 days from hospital discharge. The different oral antiplatelet agents in the cathlab, at discharge and follow-up in NSTEMI-ACS and STEMI patients is shown in Figure 2A and Figure 2B.

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teers, subjects with stable coronary artery disease and with ACS, have shown the feasibility of both upgrade and change¹²⁻¹⁵. All studies are consistent in showing that platelet inhibition when upgrade switching is achieved is comparable to a higher clopidogrel maintenance dose or after a switch from a high clopidogrel LD, while similar platelet inhibition is observed when change between ticagrelor and prasugrel is performed^{3,12,13}. Specifically designed studies evaluating the safety with respect to clinical outcomes from the switch from P2Y₁₂ receptor inhibitors are not currently available. Observational analyses assessing clinical outcomes with switching from clopidogrel to novel P2Y₁₂ receptors have recently been reported^{3,4,14,15}. A study-level meta-analysis

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De Luca L et al, Eurointervention 2019

TROPICAL ACS treatment in ACS patients undergoing PCI

Results of the TROPICAL-ACS study: a randomised, investigator-initiated, open-label, multicentre-trial

D. Sibbing, D. Aradi, C. Jacobshagen, L. Gross, D. Trenk, F. J. Neumann, K. Huber, Z. Huczek, J. Mehilli and S. Massberg, on behalf of the TROPICAL-ACS Investigators



DZHK
DEUTSCHES ZENTRUM FÜR
HERZ-KREISLAUF-FORSCHUNG E.V.

ESC CONGRESS
BARCELONA 2017

#esccongress

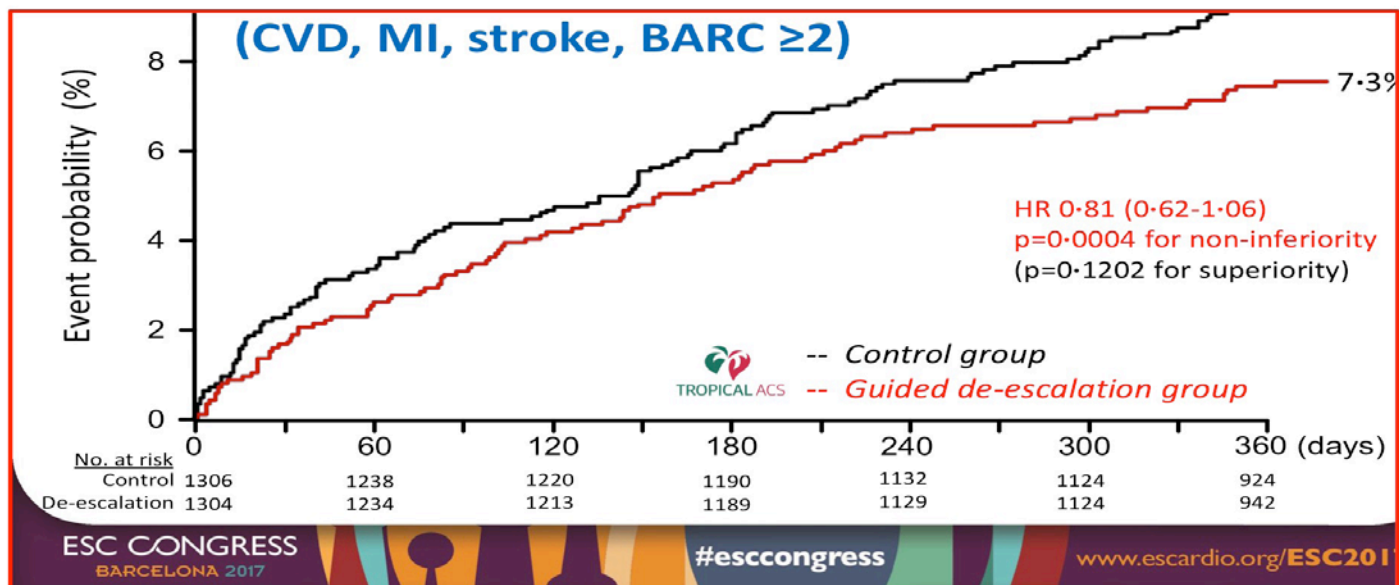
www.escardio.org/ESC2017

Sibbing D, Lancet 2017

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Sibbing D, Lancet 2017

ASSOCIAZIONE TERAPIE ANTIAGGREGANTI ed ANTICOAGULANTI

TAKE HOME MESSAGE

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Il paziente con fibrillazione atriale e stenting: possiamo *veramente* evitare subito la triplice terapia antitrombotica nella *maggioranza* dei pazienti?

Probabilmente SI nei pazienti con FANV e PCI elettiva:

- **DUAL antithrombotic therapy**
- **NAO/clopidogrel**

Attenzione nei pazienti con ACS:

- **rinuncia a ticagrelor/prasugrel ?**
- **mantenere ASA per prime 2-4 settimane ?**
- **ticagrelor prime settimane e poi deescalation?**

Verifica inibizione funzione piastrinica