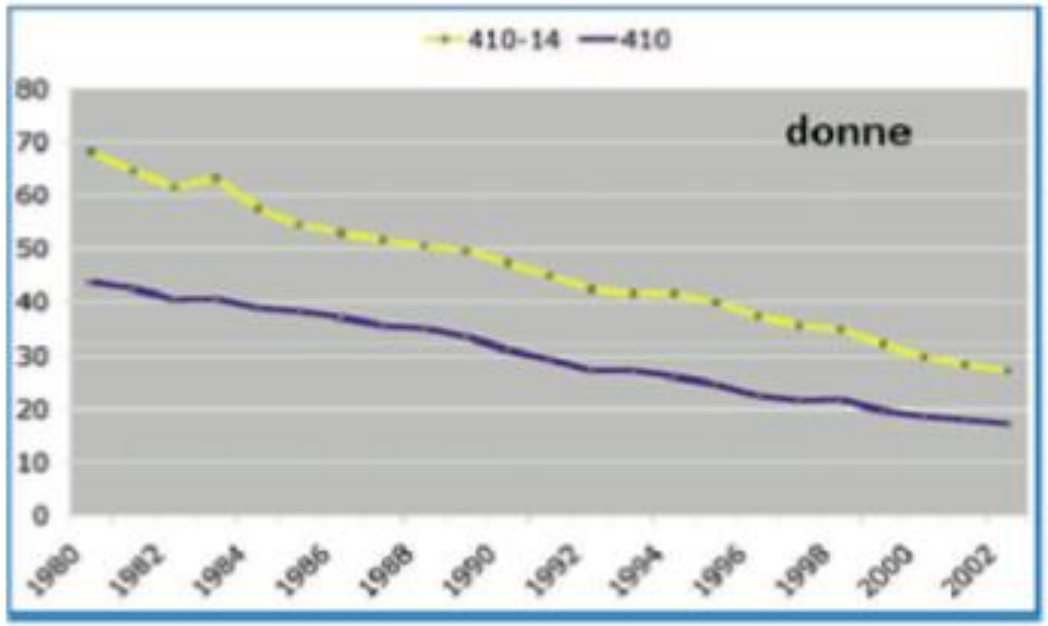
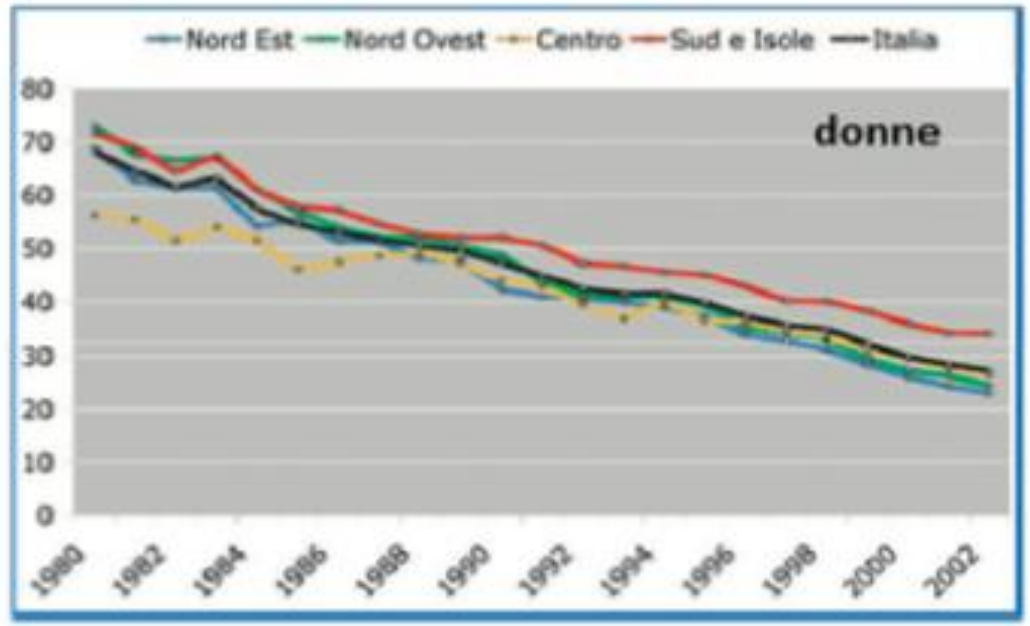
Hospital Meeting
7 MAGGIO 2019

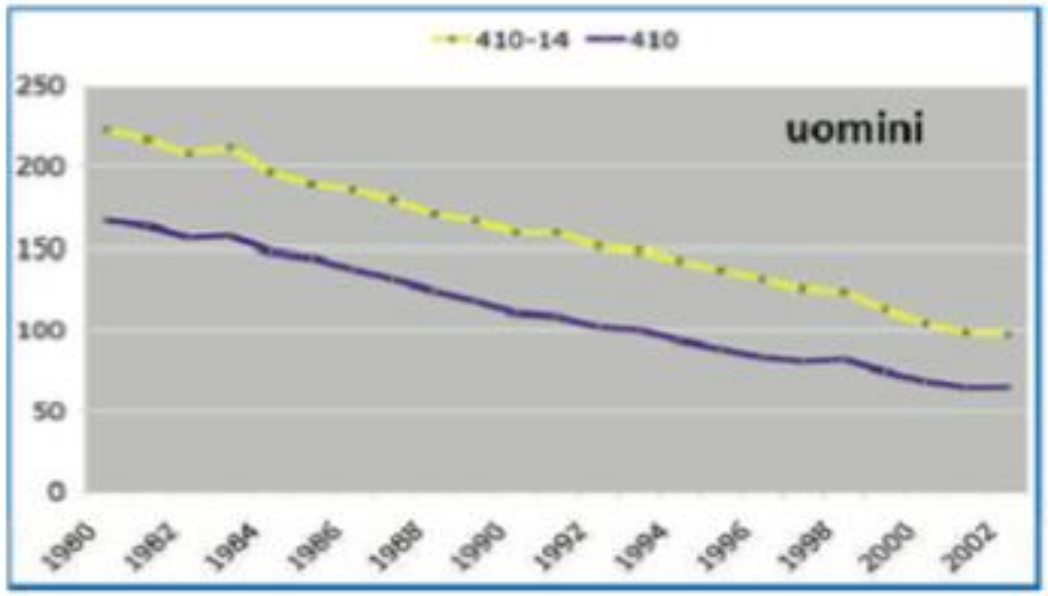
Rischio residuo nei pazienti post-IMA: razionale della DAPT nel long-term e adeguato follow-up

Prof Giuseppina Novo

UNIVERSITÀ DEGLI STUDI DI PALERMO







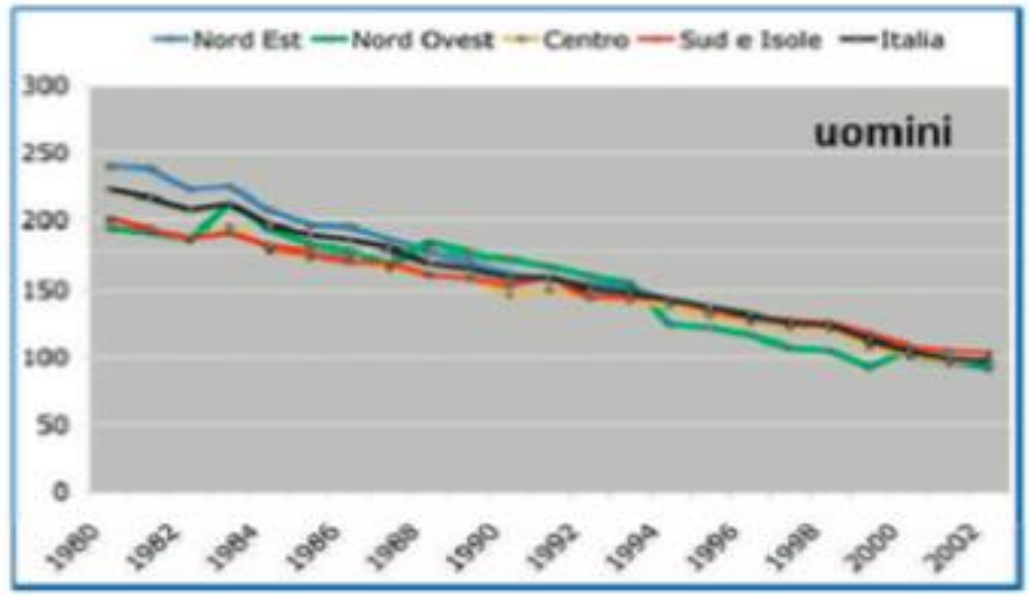
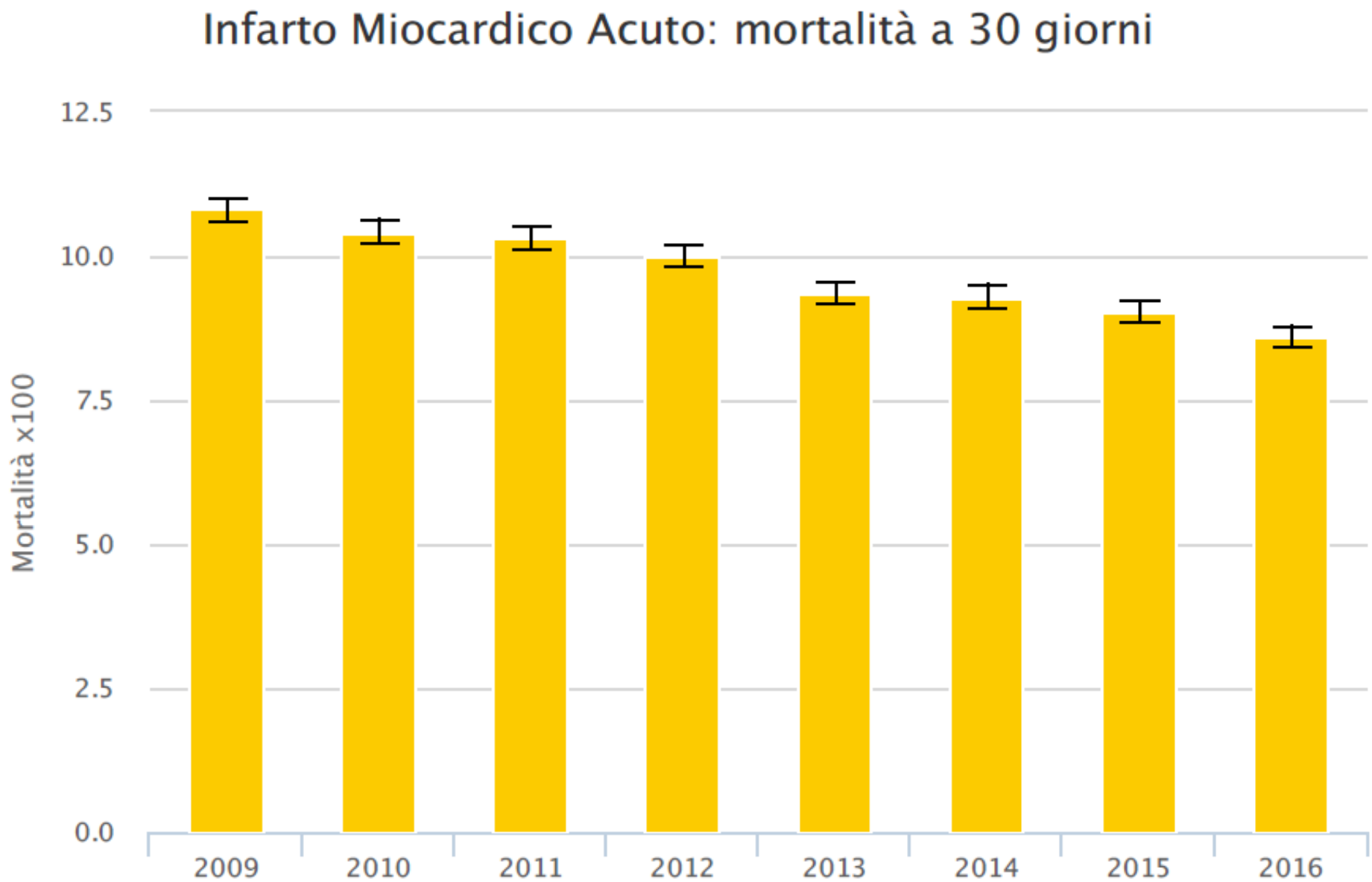
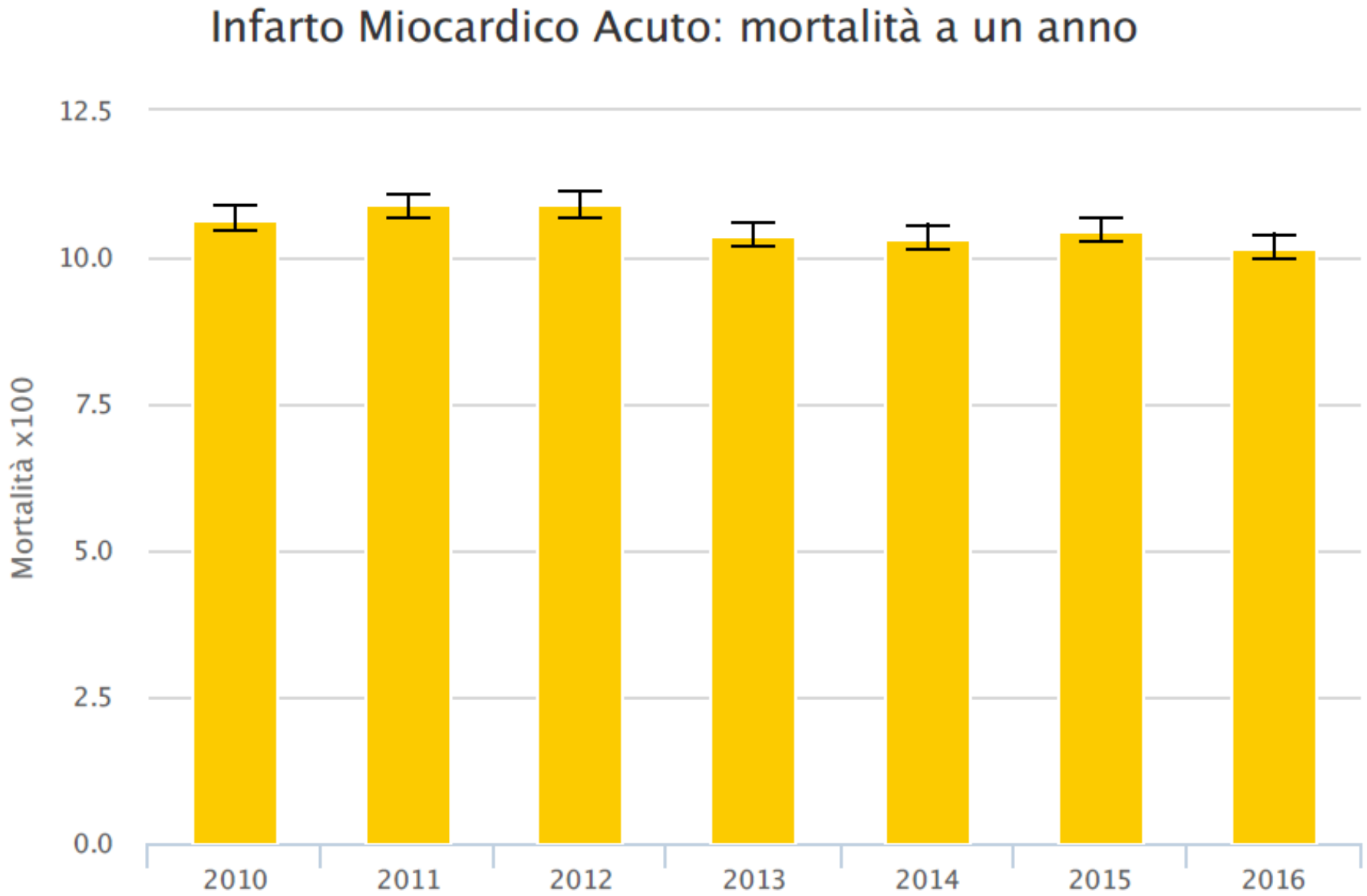


Figura 2. Mortalità per malattie ischemiche del cuore (codici ICD-9 410-14) e mortalità per infarto miocardico acuto (codice ICD-9 410). Dati dall'Osservatorio Epidemiologico Cardiovascolare/Health Examination Survey.


Infarto Miocardico Acuto: mortalità a 30 giorni
Mortalità x100
12.5
10.0
7.5
5.0
2.5
0.0
2009
2010
2011
2012
2013
2014
2015
2016


Infarto Miocardico Acuto: mortalità a un anno
Mortalità x100
12.5
10.0
7.5
5.0
2.5
0.0
2010
2011
2012
2013
2014
2015
2016

Documento di consenso intersocietario ANMCO/ANCE/ARCA/GICR-IACPR/GISE/SICOA: La terapia antiaggregante a lungo termine nel paziente con malattia coronarica

Approvato anche da:

Consulta delle Società Cardiologiche (CSC)

ANMCO - ATBV - GICR-IACPR - GIEC - GISE - ITAHFA - SICOA - SICP - SIT

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RIAMMISSIONE OSPEDALIERA FATALE

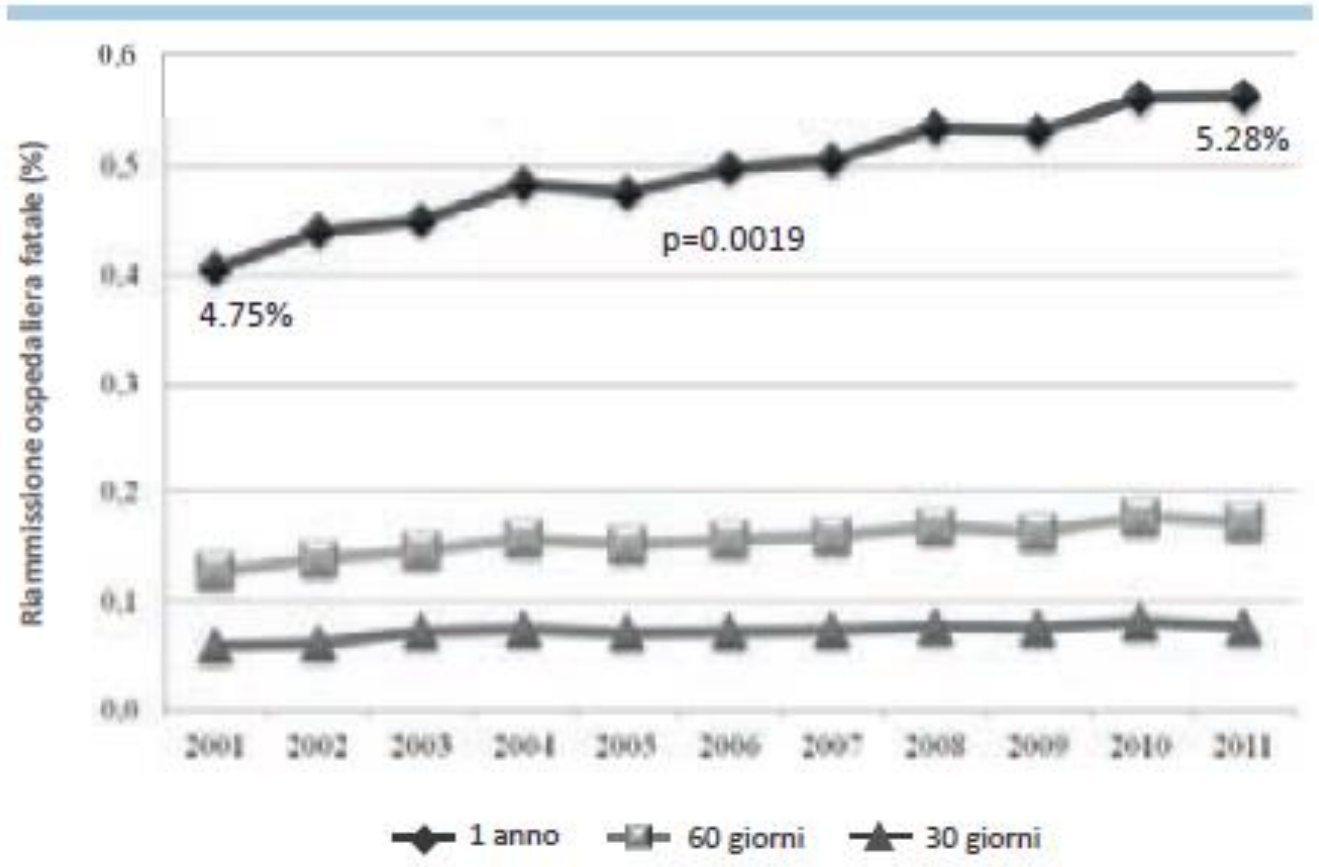
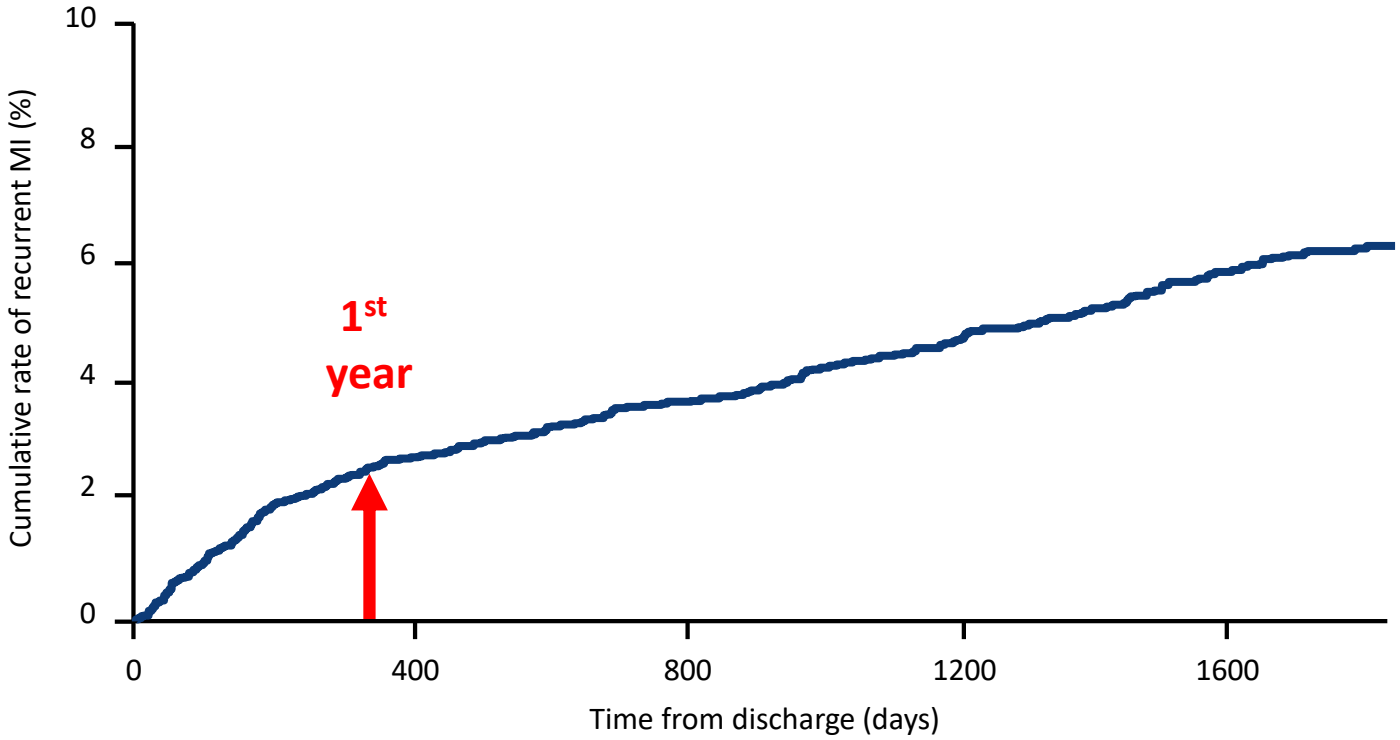


Figura 4. Andamento dei tassi di riammissione ospedaliera fatale a 1 anno, 30 giorni e 60 giorni nella popolazione italiana con infarto miocardico acuto. Dati derivati dalle schede di dimissione ospedaliera 2001-2011.

DAPT Duration: Extending long term – Rationale –

The highest risk of recurrent MI occurs in the initial year post discharge, but the risk is continuous and linear up to year 5

OACIS registry: Observational study of recurrent MI in Japanese patients with acute MI with up to 5 years of follow-up (n=7870)



A patient is at the same risk at 1, 2, 3, 4 and 5 years post-discharge

Nakatani D et al. Circ J 2013;77:439–446.

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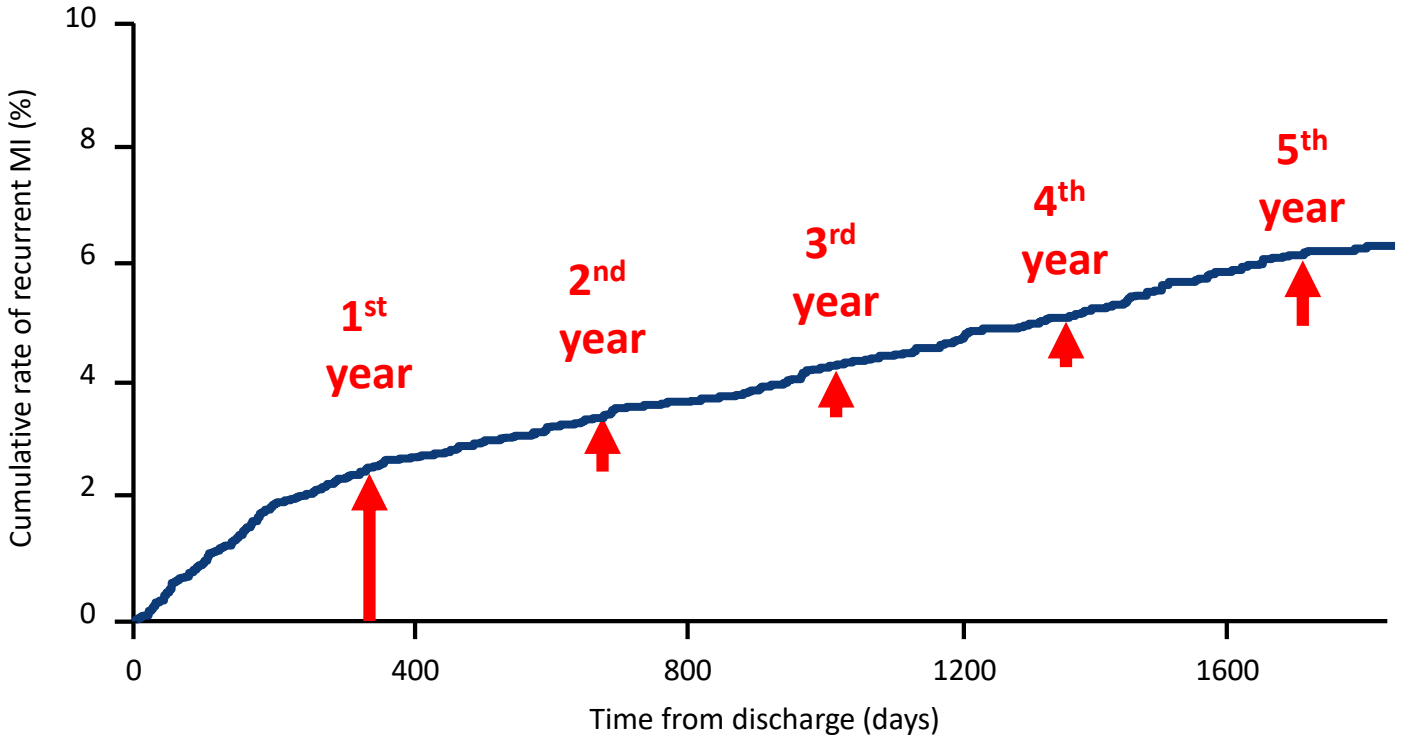

The incidence of Re-MI per year was 2.65% for the first year, and 0.91-1.42% thereafter up to 5 years

The predictors of Re-MI were diabetes mellitus (hazard ratio (HR): 2.079, P<0.001), history of MI (HR: 1.767, P=0.001), and advanced age (HR: 1.021, P=0.001)

Nakatani D et al. Circ J 2013;77:439–446

DAPT Duration: Extending long term – Rationale –

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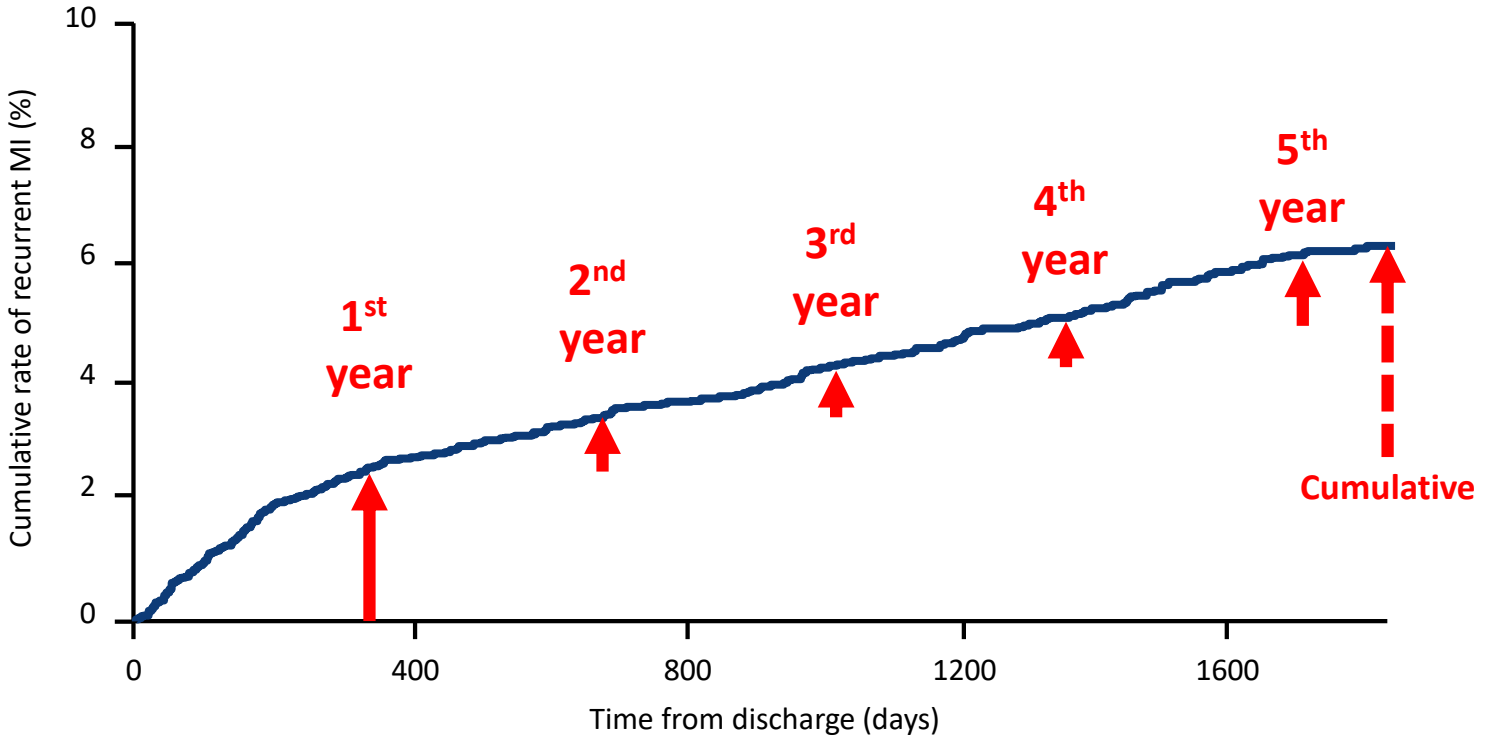


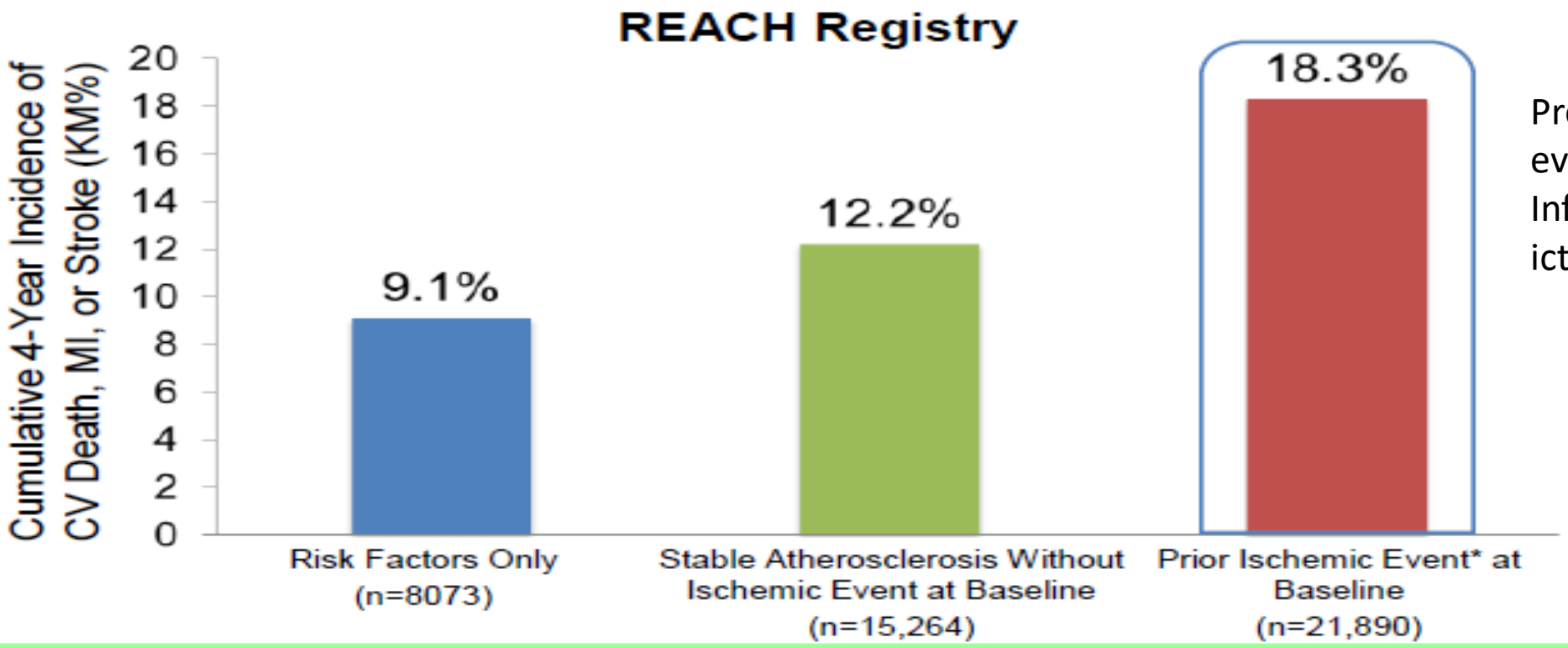
A patient is at the same risk at 1, 2, 3, 4 and 5 years post-discharge

Nakatani D et al. Circ J 2013;77:439–446.

1. RISCHIO DI EVENTI ISCHEMICI RESIDUI DOPO 12 MESI DA UN PRIMO EVENTO

Reduction of atherothrombosis for continued health, JAMA 2010

Patients With a History of Prior Ischemic Events Had a High Risk of CV Events at 4 Years



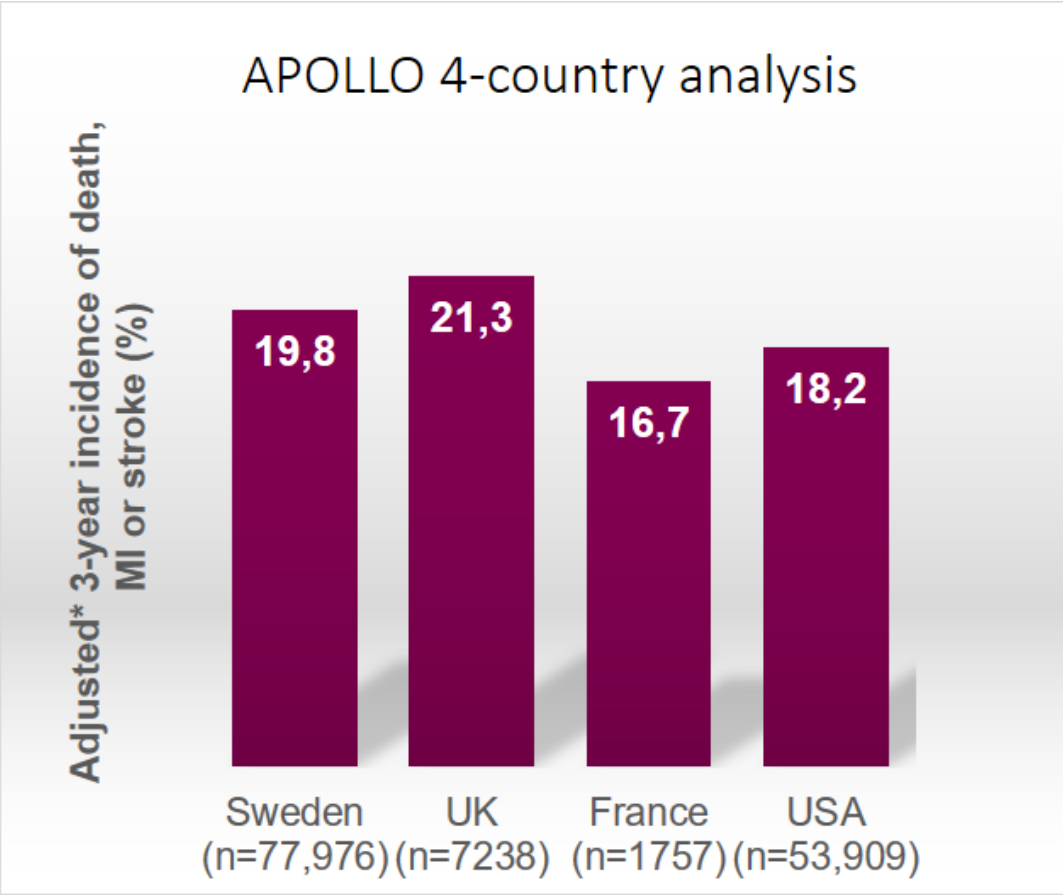
Precedente evento ischemico: Infarto o ictus

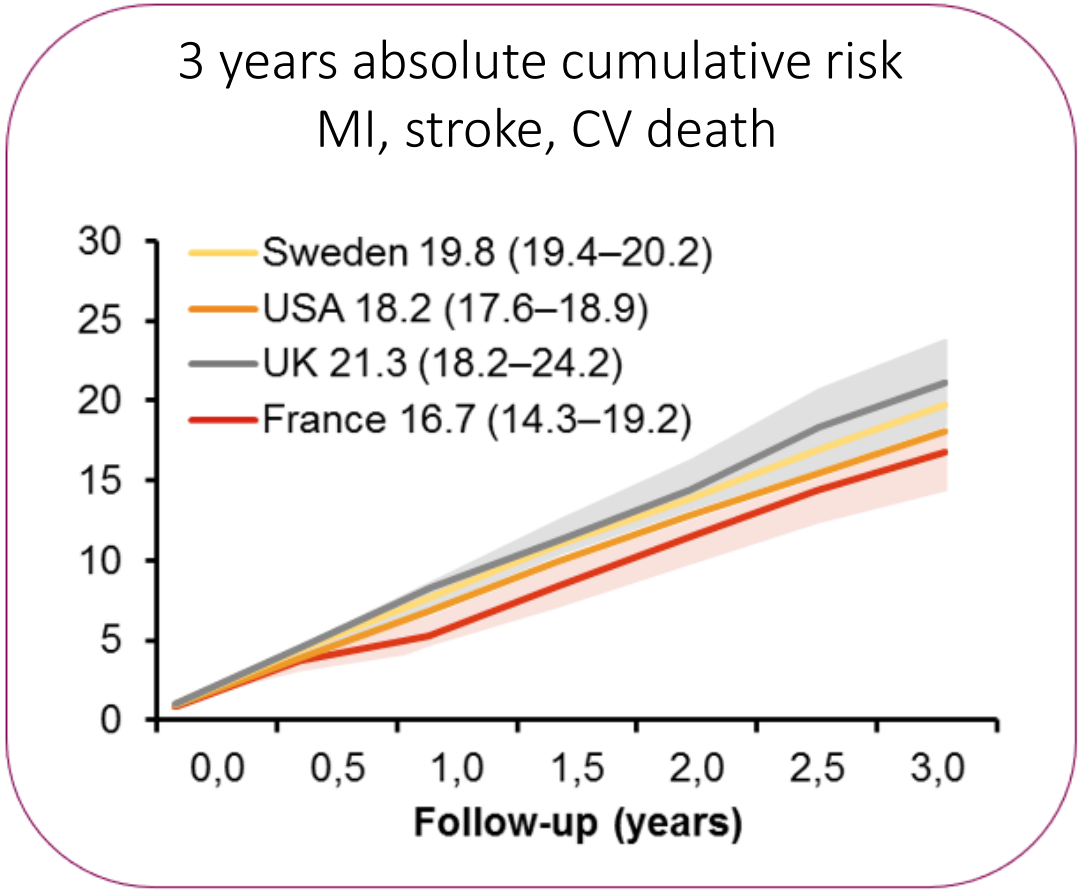
International, prospective, observational study of 45,227 patients ≥45 years of age at risk for or with atherothrombosis. The cohort was enrolled from 29 countries and followed annually for 4 years from 2003 to 2008

Residual risk

PROGRAMMA APOLLO: 5 individual studies in 4 countries encompassing > 150000 patients

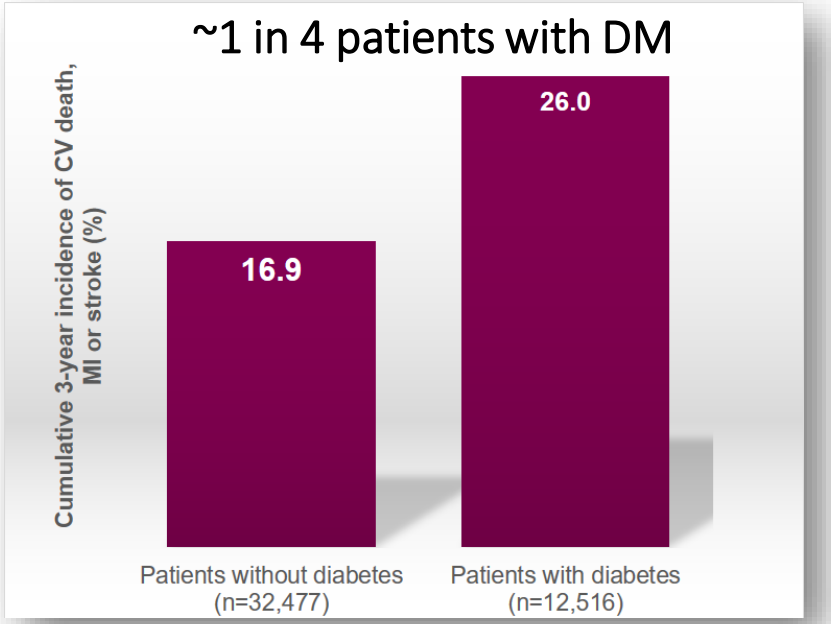
~1 in 5 patients (20%) who were event-free for the first year **post-MI** suffered an MI, stroke or CV death within 3 years

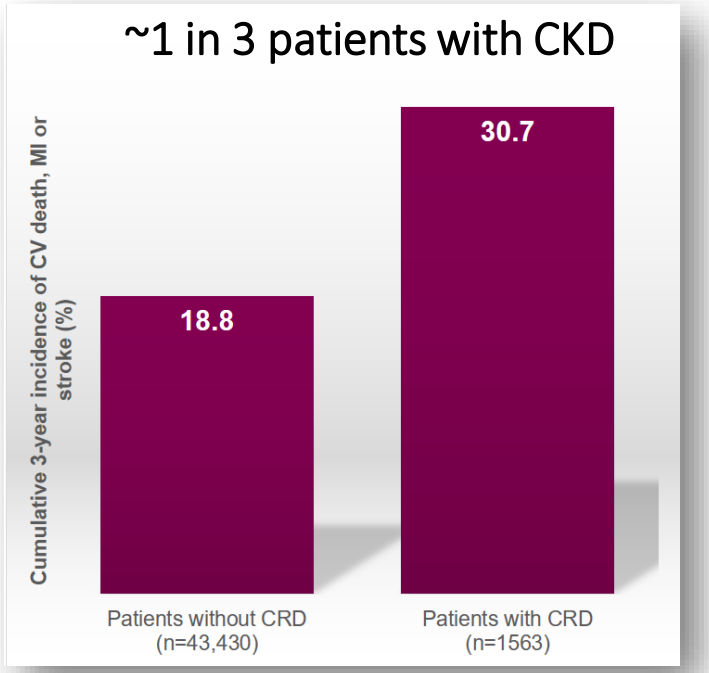


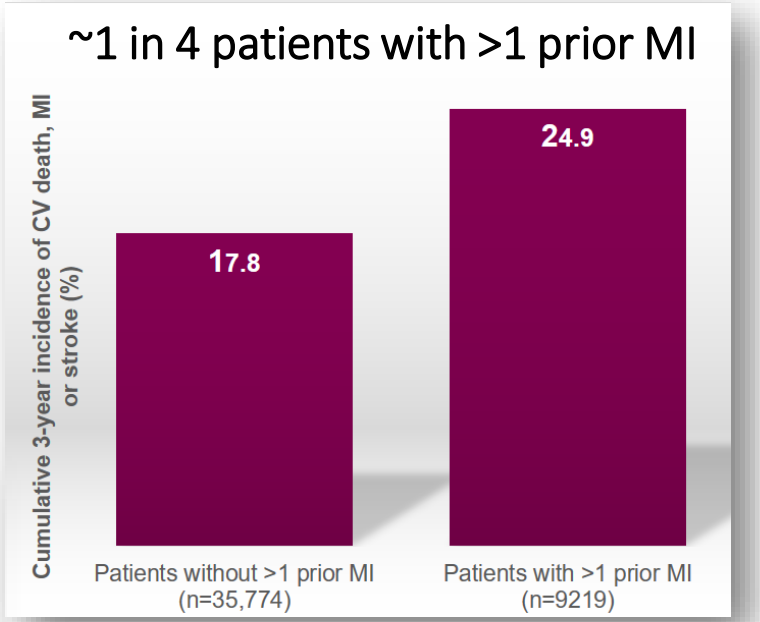


[1]Rapsomaniki E, et al. ESC Late Breaking Registry abstract 2014: In press; [2] DeVore S, et al. ISPOR poster 2014;
[3]Jernberg T, et al. Eur Heart J 2015;36:1163–1170; [4]Blin P, et al. Eur Heart J 2014;35:(Suppl 1)150 (Abstract P790)

Incidence of MI, stroke or CV death within 3 years in event-free patents for 1 year post-MI[1]



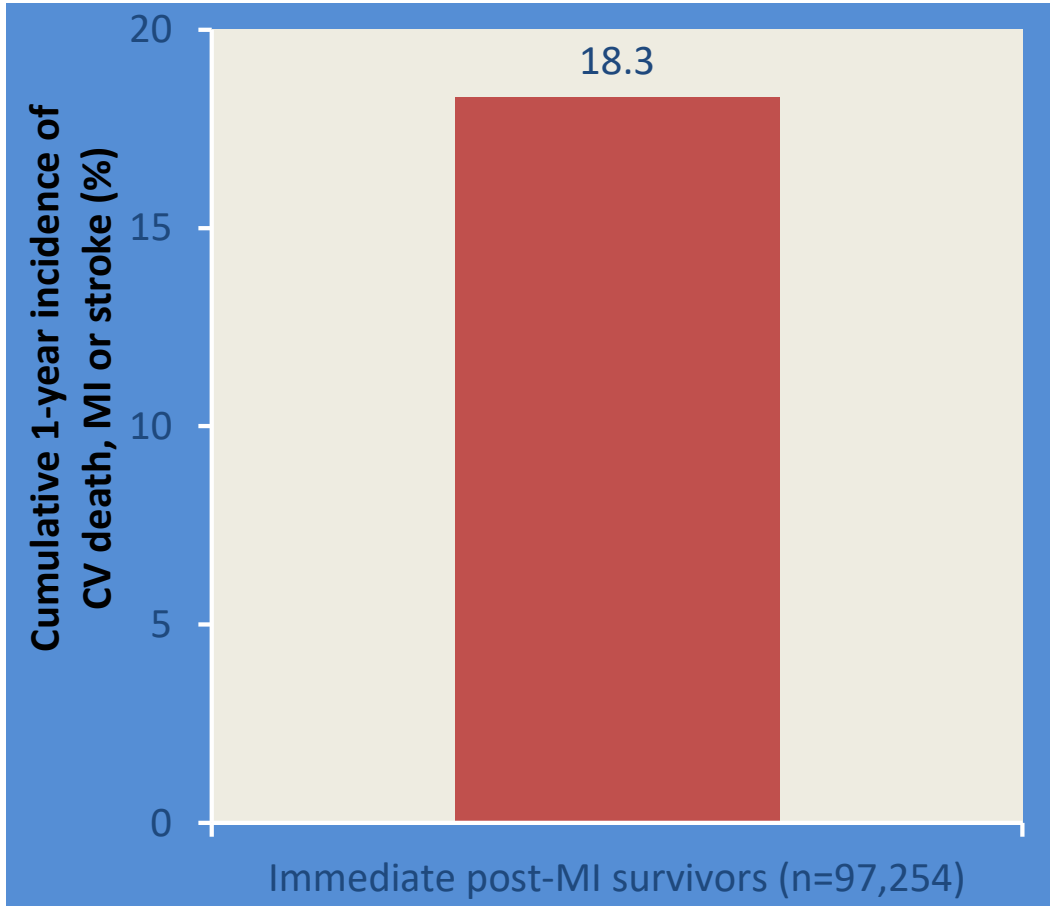




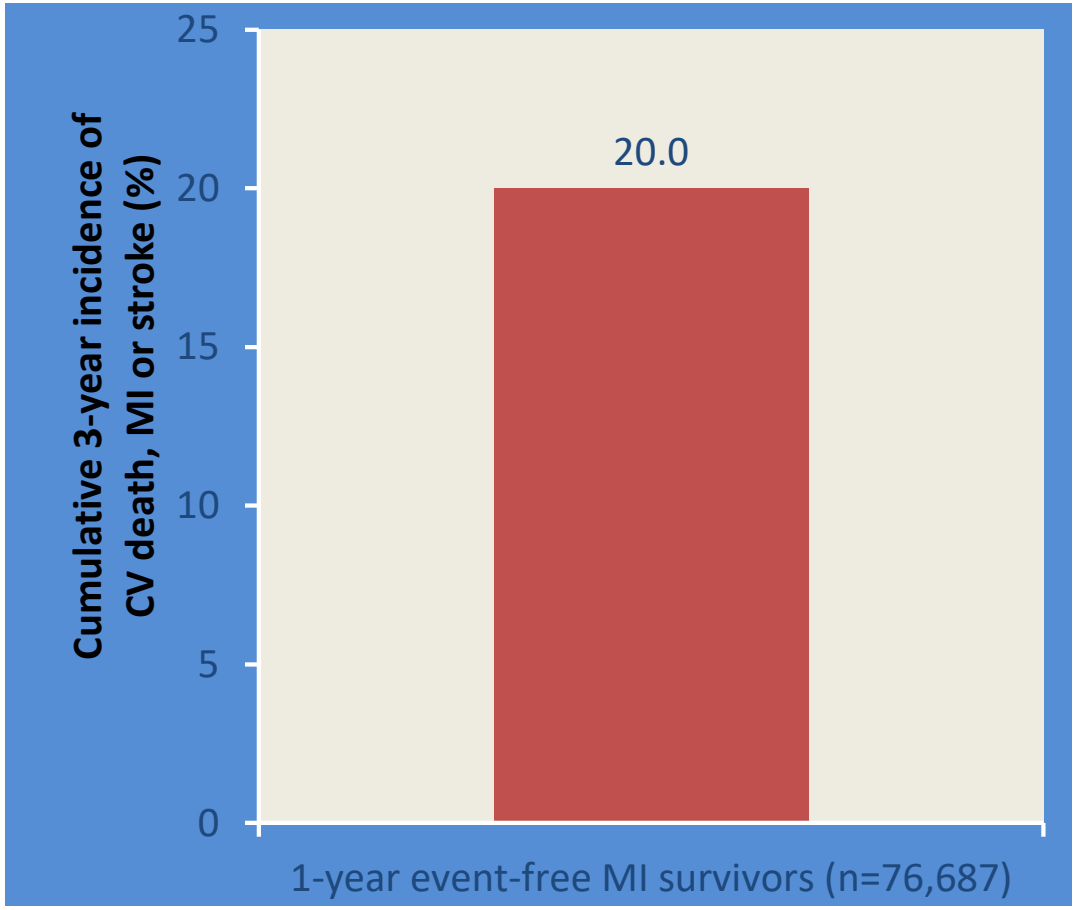
[1] Timmis A, et al. BMJ 2016;353:i3163

Data from the Swedish database

~1 in 5 patients suffered an MI, stroke or CV death within the first year after an MI



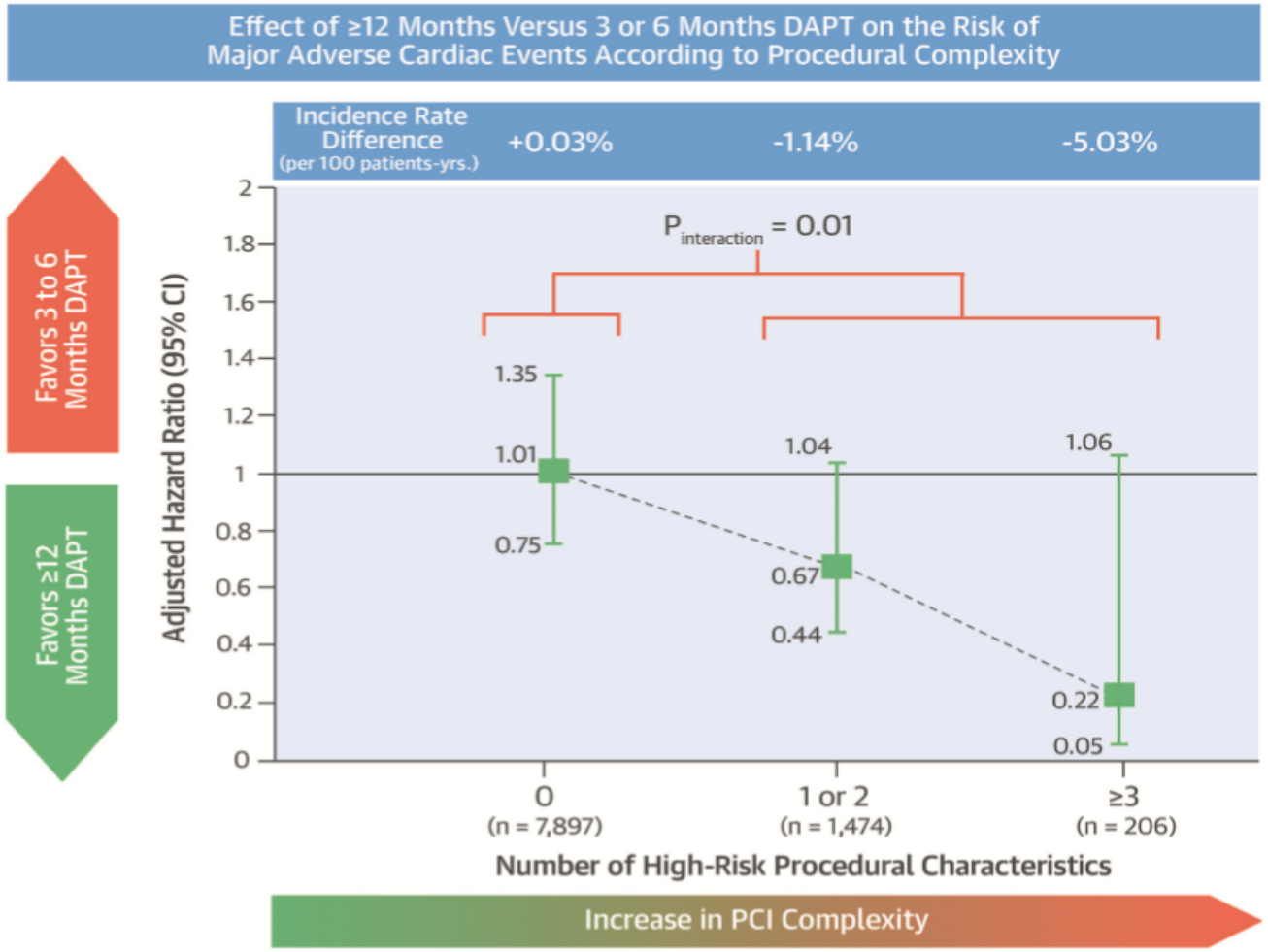
1 in 5 patients who were event-free for 1 year post-MI suffered an MI, stroke or CV death within 3 years



ISCHEMIC BENEFIT OF LONG-DAPT ACCORDING TO THE DEGREE OF PCI COMPLEXITY

This study investigated the efficacy and safety of long-term (≥ 12 months) versus short-term (3 or 6 months) DAPT with aspirin and clopidogrel according to PCI complexity

Dati da 6 studi randomizzati



COMPLEX PCI:
3 vessels treated,
≥3 stents implanted,
≥ 3 lesions treated,
bifurcation with 2 stents implanted,
total stent length >60 mm,
chronic total occlusion.

Alongside other established clinical risk factors, **procedural complexity is an important parameter to take into account in tailoring upfront duration of DAP**

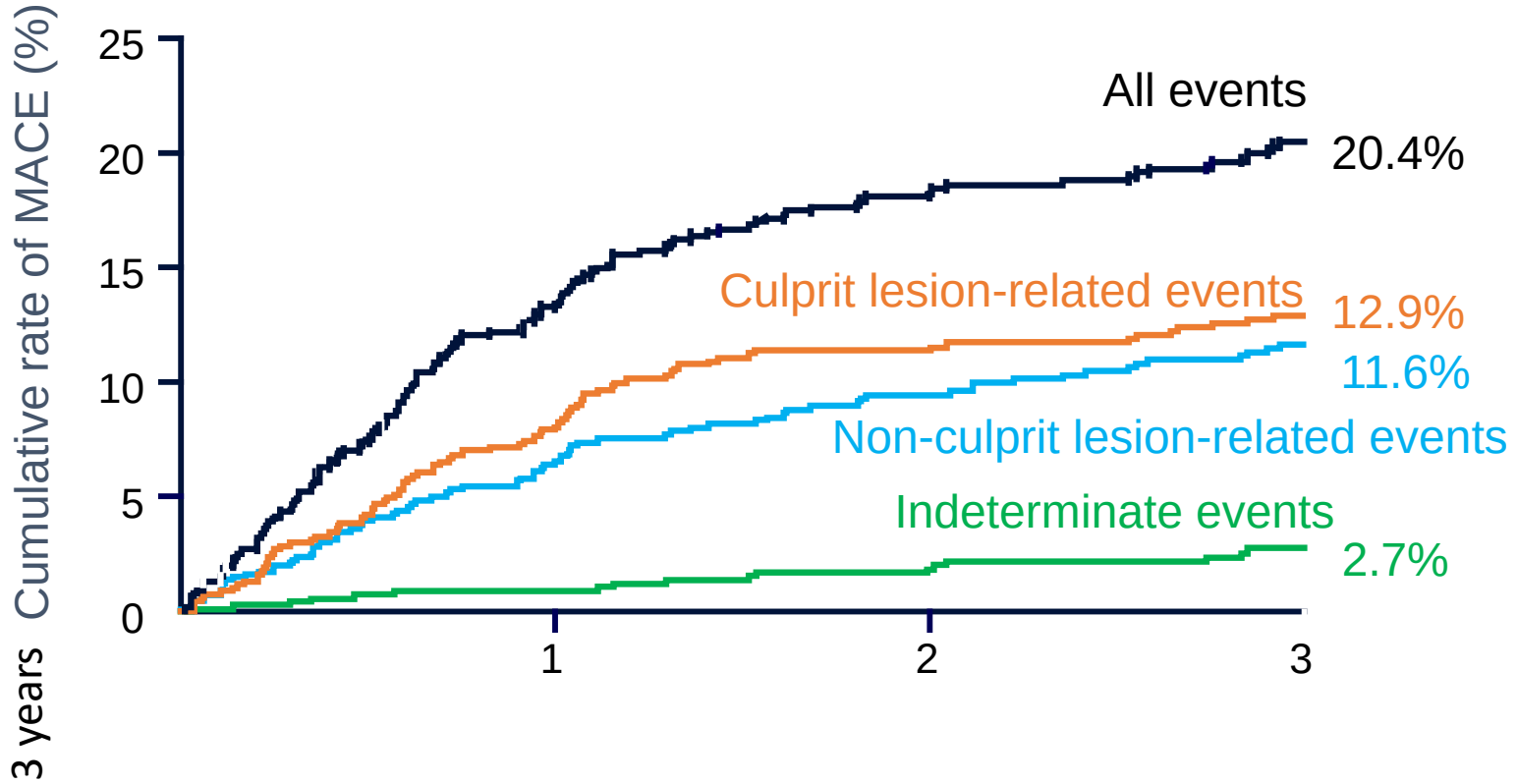
Giustino et al. JACC 2016

KEY POINTS:

- 1.ESISTE UN RISCHIO DI EVENTI ISCHEMICI RESIDUI DOPO 12 MESI DA UN PRIMO EVENTO (criteri clinici e anatomici)

Half of MACE in ACS patients are related to non-culprit lesion: **PROSPECT study**

Prospective study of 697 **ACS patients** undergoing three-vessel angiography and gray-scale and radiofrequency intravascular ultrasonographic imaging after PCI
MACE were adjudicated to be related to either originally treated (culprit) lesions or un- treated (nonculprit) lesions. FU 3,4 anni

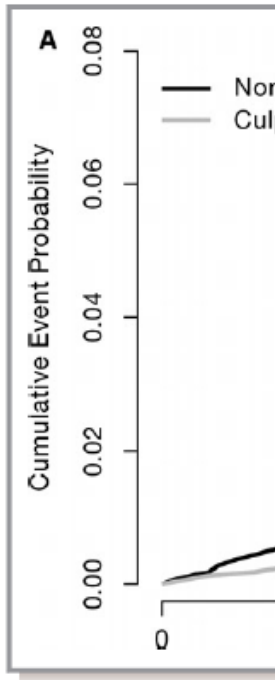


PLAQUES:
mild,
thin-cap fibroatheromas
large plaque burden
small luminal area,

Stone GW et al. *N Engl J Med* 2011;364:226–235

American Heart Association | American Stroke Association.

Culprit and Nonculprit Recurrent Ischemic Events in Patients With Myocardial Infarction: Data From SWEDEHEART (Swedish Web



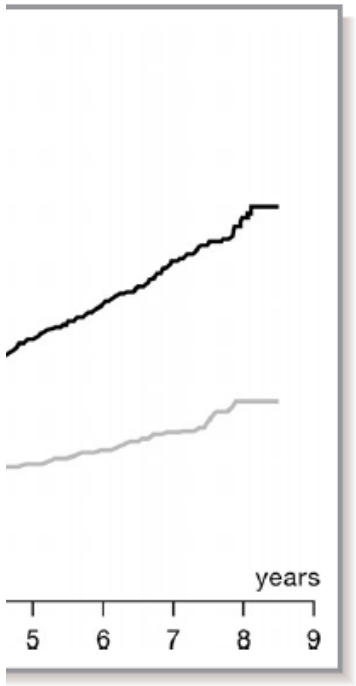


Figure 3. Cumulative
end of follow-up, for fi
8 years, respectively)

ype of myocardial infarction or
n=504 and n=1241 for 1 and

Clinical Perspective

What Is New?

- The risk of recurrent myocardial infarction originating from a previously untreated lesion, or nonculprit lesion, was more than twice as high as the risk of reinfarction from a previously treated lesion among patients with myocardial infarction who underwent percutaneous coronary intervention.

What Are the Clinical Implications?

- A better understanding of long-term disease progression and whether reinfarctions occur in previously treated (stented) lesions or in new or progressive lesions may have an impact on decisions on type and duration of medical treatment after an initial myocardial infarction.

Key Words: culprit artery • myocardial infarction • nonculprit artery • percutaneous coronary intervention • prognosis

KEY POINTS:

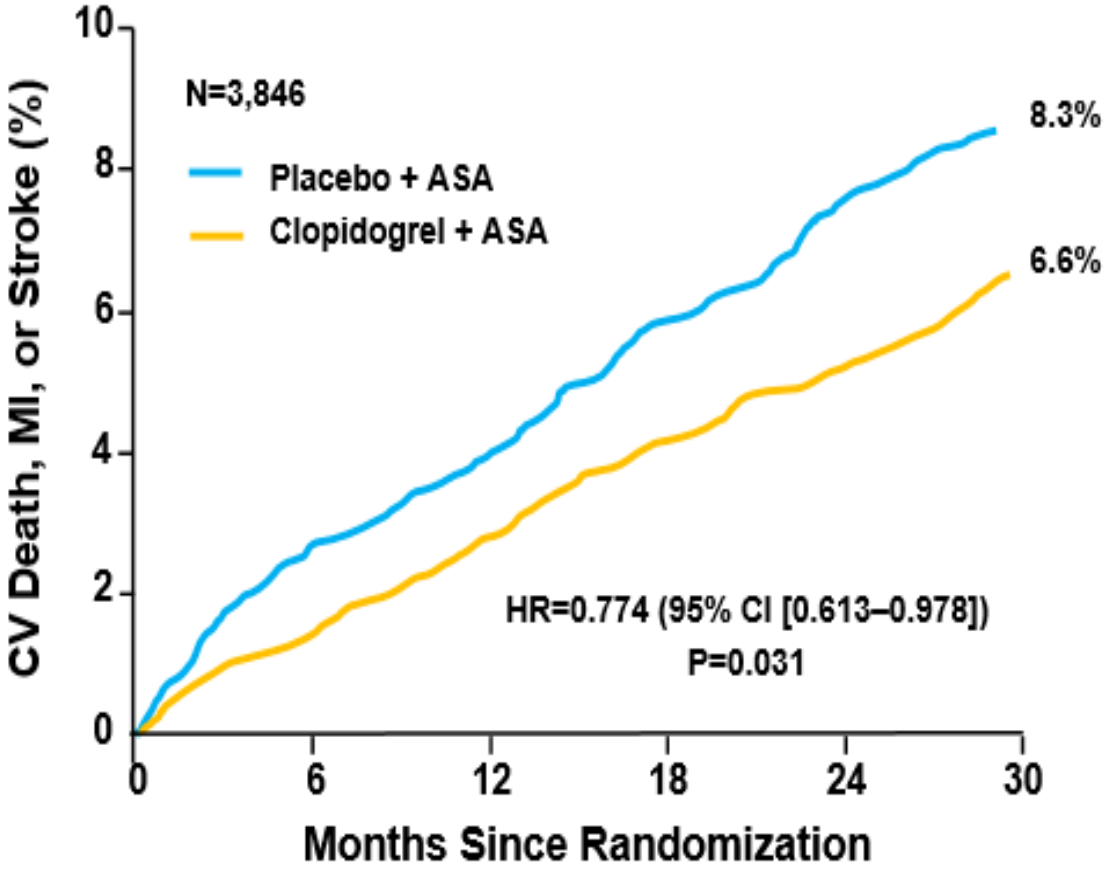
- 1.ESISTE UN RISCHIO DI EVENTI ISCHEMICI RESIDUI DOPO 12 MESI DA UN PRIMO EVENTO
- 2 META’ DEI MACE AL F-U SONO CORRELATI A LESIONI NON COLPEVOLI IN ACUTO

CHARISMA: Prior MI

a post-hoc exploratory subgroup

23% risk reduction if prior MI

Pts con **CAD stabile** ed alto rischio aterotrombotico randomizzati a DAPT con ASA+clopidogrel o ASA+placebo
FU medio 28 mesi

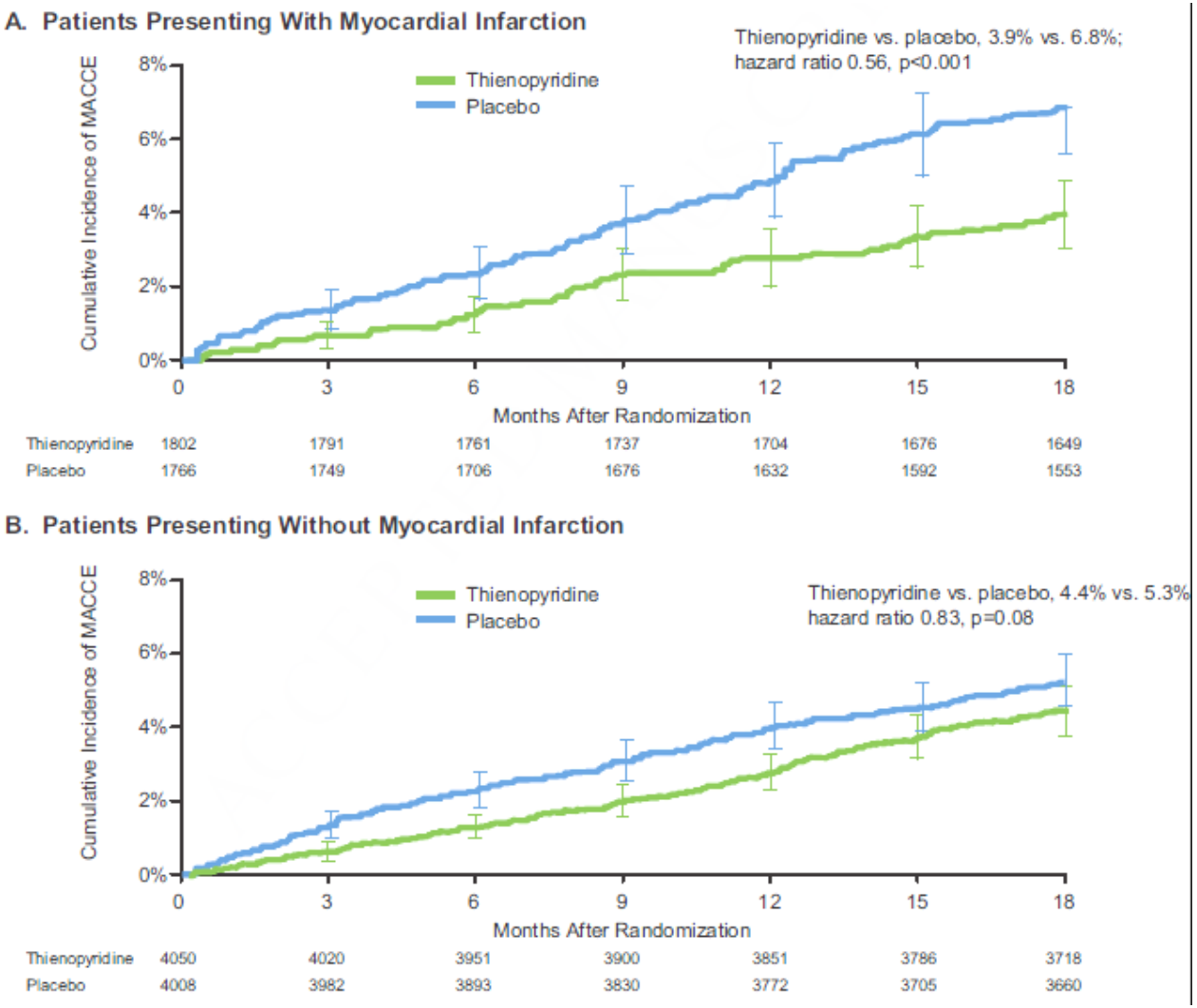


No benefit in the overall population
Benefits in the subgroup with prior MI

Patients with prior MI are at a higher risk of MACE than patients who have coronary disease and no history of MI

Bhatt DL et al. J Am Coll Cardiol. 2007;49:1982-1988

Benefits of Extended DAPT in Patients with Previous MI



Objective: to assess the benefits and risks of 30 versus 12 months of dual antiplatelet (CLOPIDOGREL o PRASUGREL) therapy among patients **undergoing coronary stent implantation** with and without MI

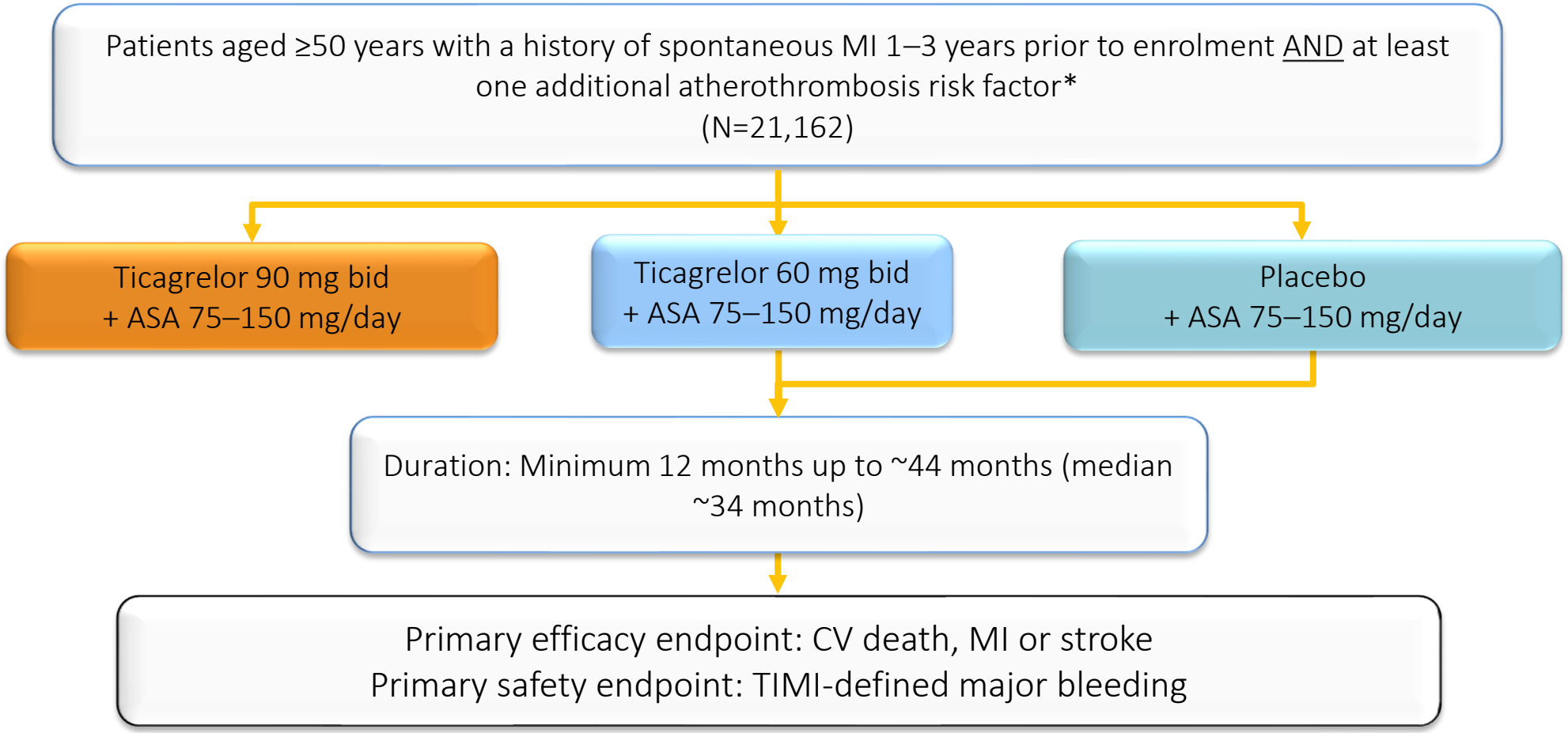
Compared with 12 months of therapy, 30 months of dual antiplatelet therapy reduced the risk of stent thrombosis and MI **in patients with and without MI, and increased bleeding**.

MACE reduction was greater for patients with MI (3.9% vs. 6.8% HR 0.42 $p < 0.001$) compared with those with no MI (4.4% vs. 5.3% HR 0.60 $p = 0.08$)

Yen RW, et al. J Am Coll Cardiol 2015

PEGASUS-TIMI 54 Trial

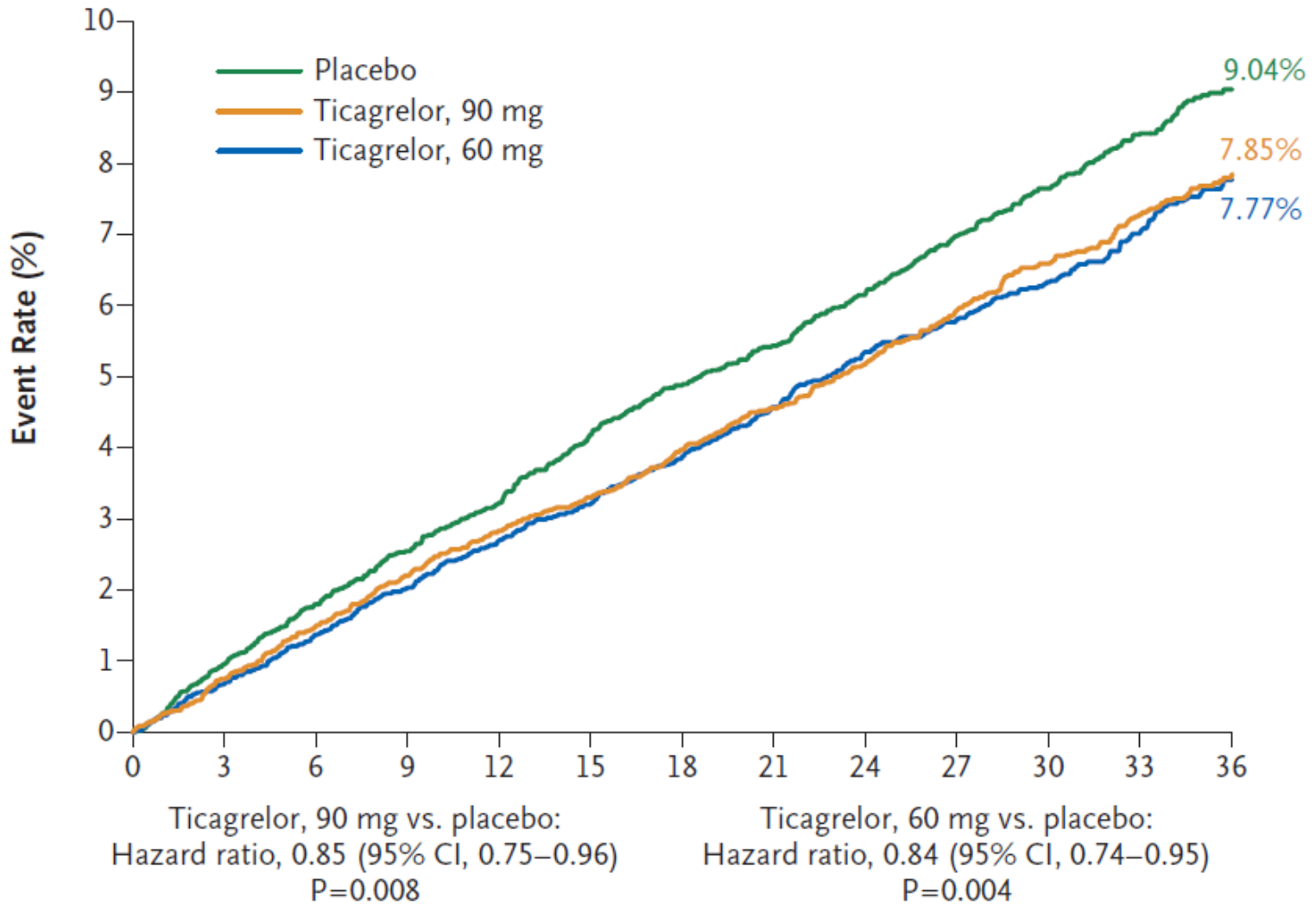
*Age ≥65
DM
CKD
Prior > 1 MI
MVD



*Age ≥65 years, diabetes mellitus, second prior MI, multivessel CAD or chronic non-end stage renal disease
bid, twice daily; CAD, coronary artery disease; TIMI, Thrombolysis in Myocardial Infarction

Bonaca MP *et al. Am Heart J* 2014;167:437–444 Bonaca MP *et al. N Engl J Med* 2015 [

Primary Endpoint

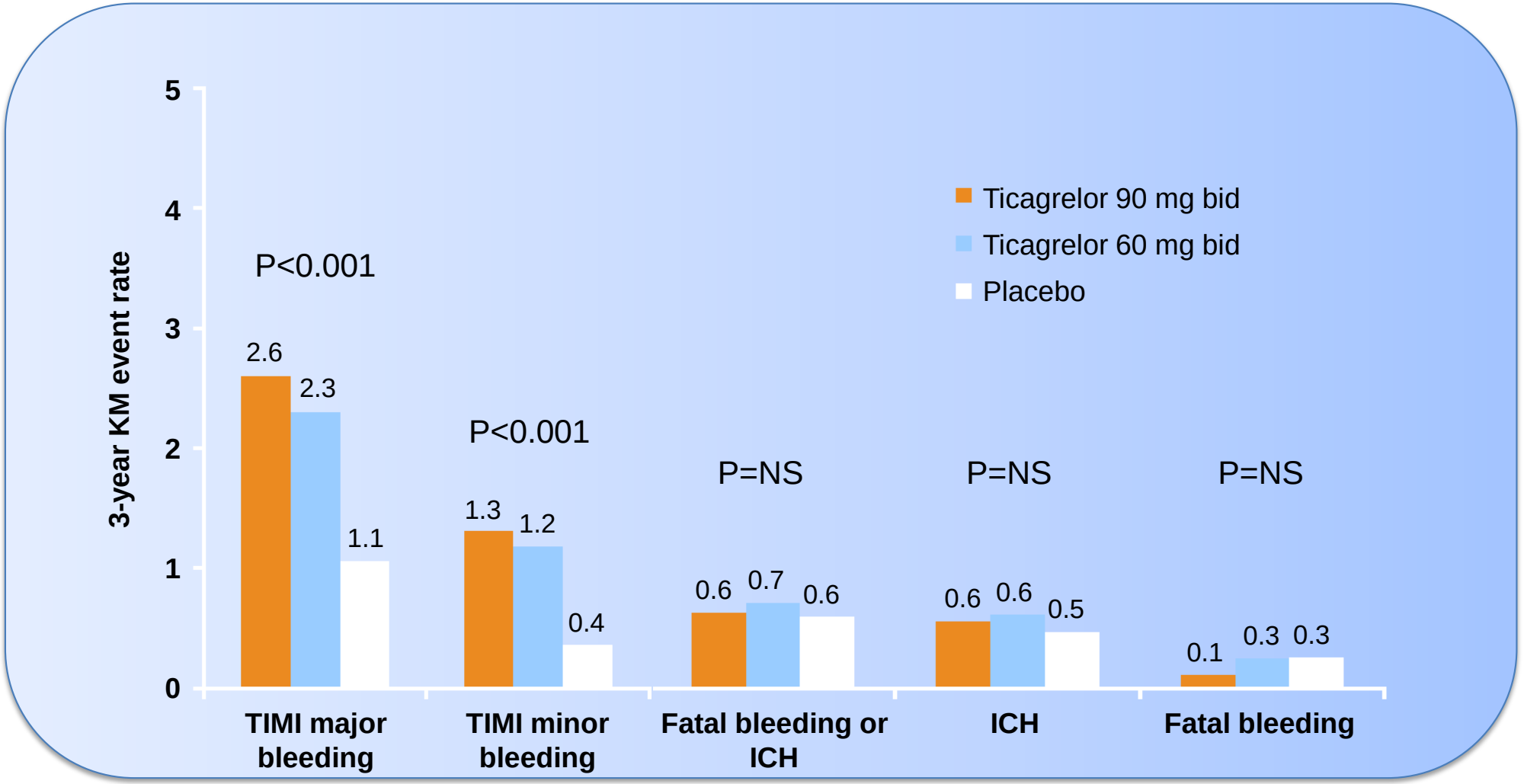


RRR 16%

P<0.026 indicates statistical significance; CI, confidence interval; HR, hazard ratio

Bonaca MP *et al*. *N Engl J Med* 2015

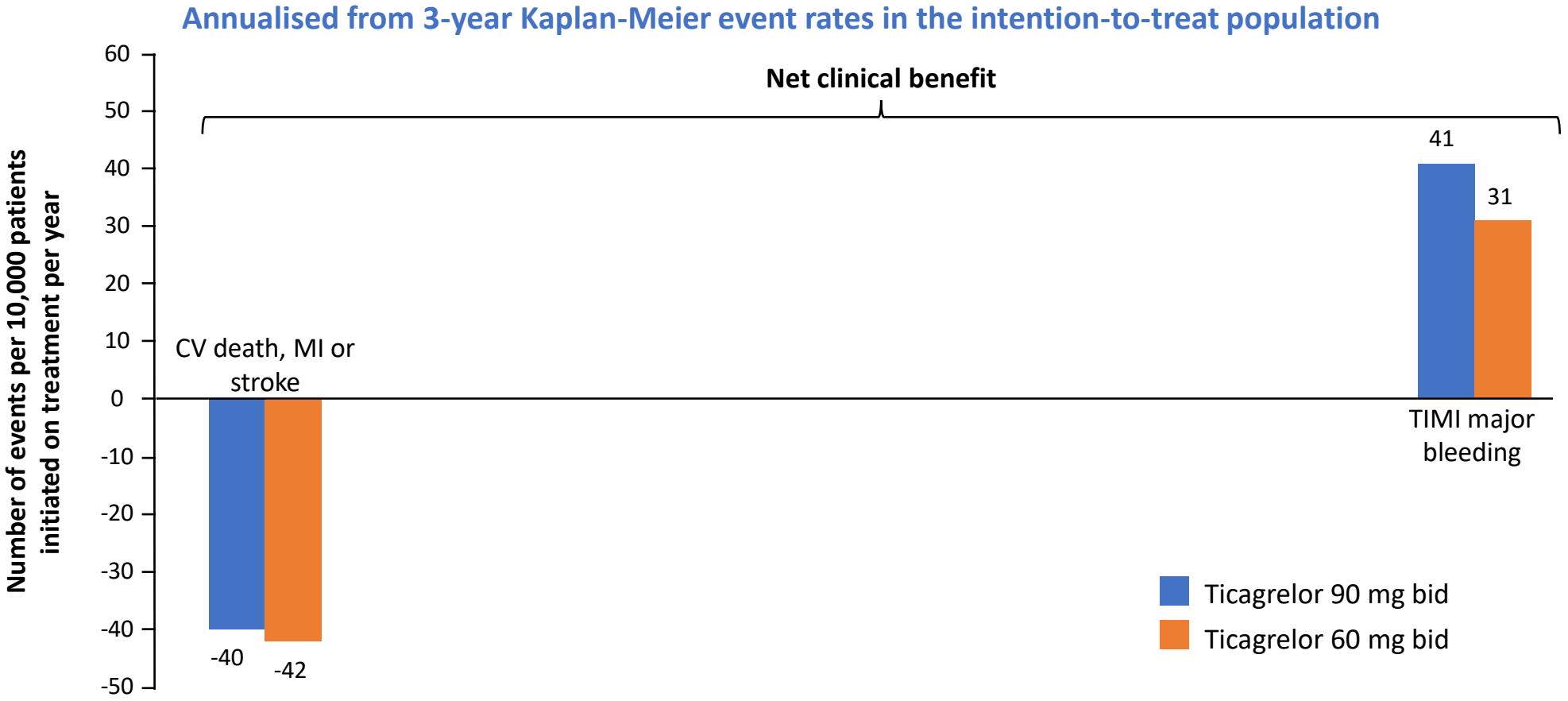
Bleeding



Rates are presented as 3-year Kaplan-Meier estimates

Bonaca MP *et al*. *N Engl J Med* 2015

PEGASUS-TIMI 54: Estimates of First Efficacy and Bleeding Events 'Prevented' and 'Caused'



Net clinical benefit is defined as the comparison of first occurrence of CV death, MI or stroke with first occurrence of TIMI major bleeding; irreversible events are defined as CV death, MI, stroke, fatal bleeding and ICH

Note these are estimated events based on calculations made from the observed ARRs in the PEGASUS-TIMI 54 study and therefore should be viewed as estimates of events 'prevented' and 'caused' rather than specific indicators of efficacy. Also note that these analyses are based on Kaplan-Meier time to first event curves, and therefore the sum of the events for CV death, MI and stroke individually do not equal that for the composite of CV death/MI/stroke

Bonaca MP *et al*. *N Engl J Med* 2015;372:1791–1800, Supplementary Appendix

Data on file: Promomats Approval ID REF-3549

PEGASUS-TIMI 54: Estimates of First Efficacy and Bleeding Events 'Prevented' and 'Caused'

Annualised from 3-year Kaplan-Meier event rates in the intention-to-treat population

Net clinical benefit is defined as the comparison of first occurrence of CV death, MI or stroke with first occurrence of TIMI major bleeding; irreversible events are defined as CV death, MI, stroke, fatal bleeding and ICH

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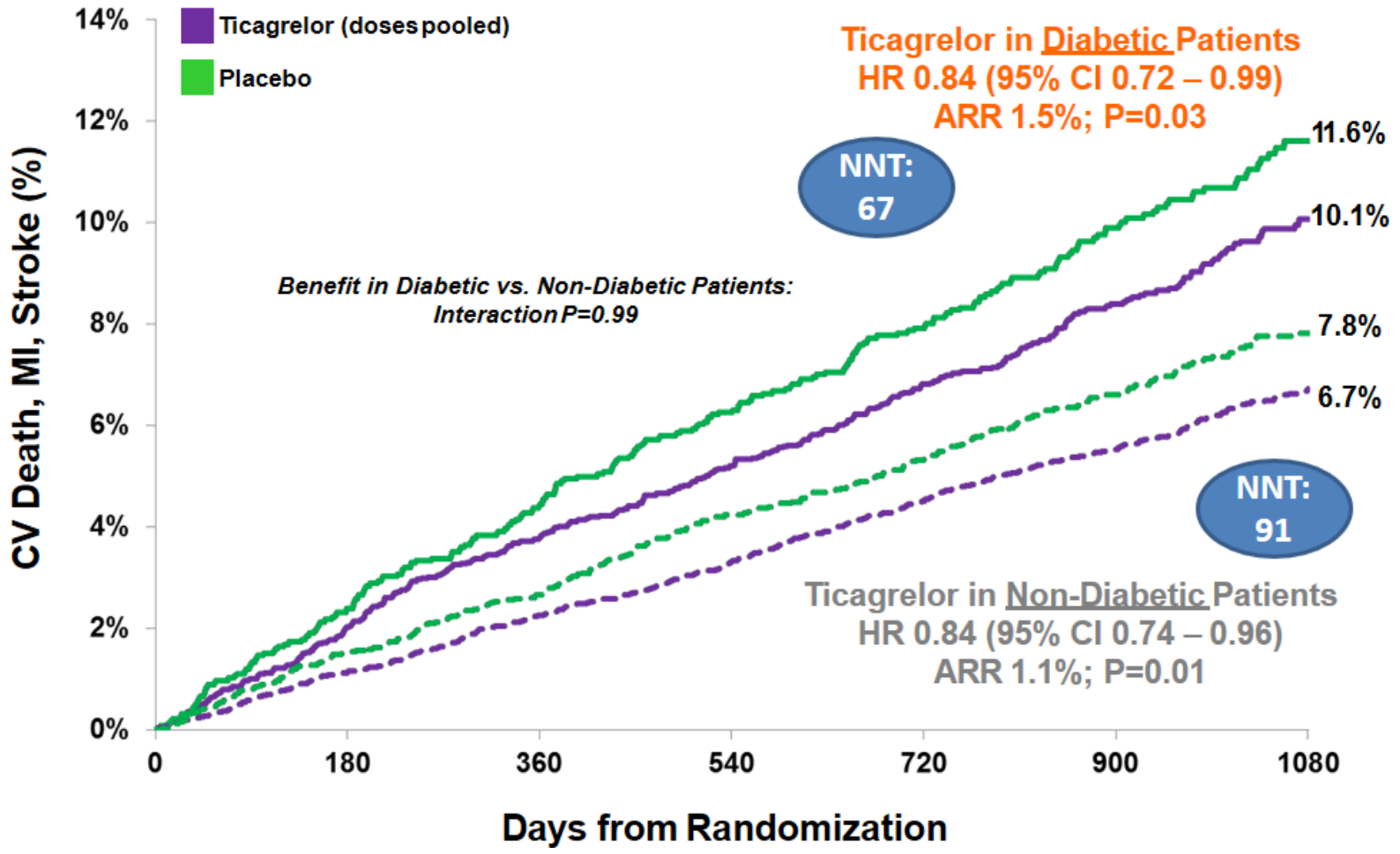
Bonaca MP *et al*. *N Engl J Med* 2015;372:1791–1800, Supplementary Appendix

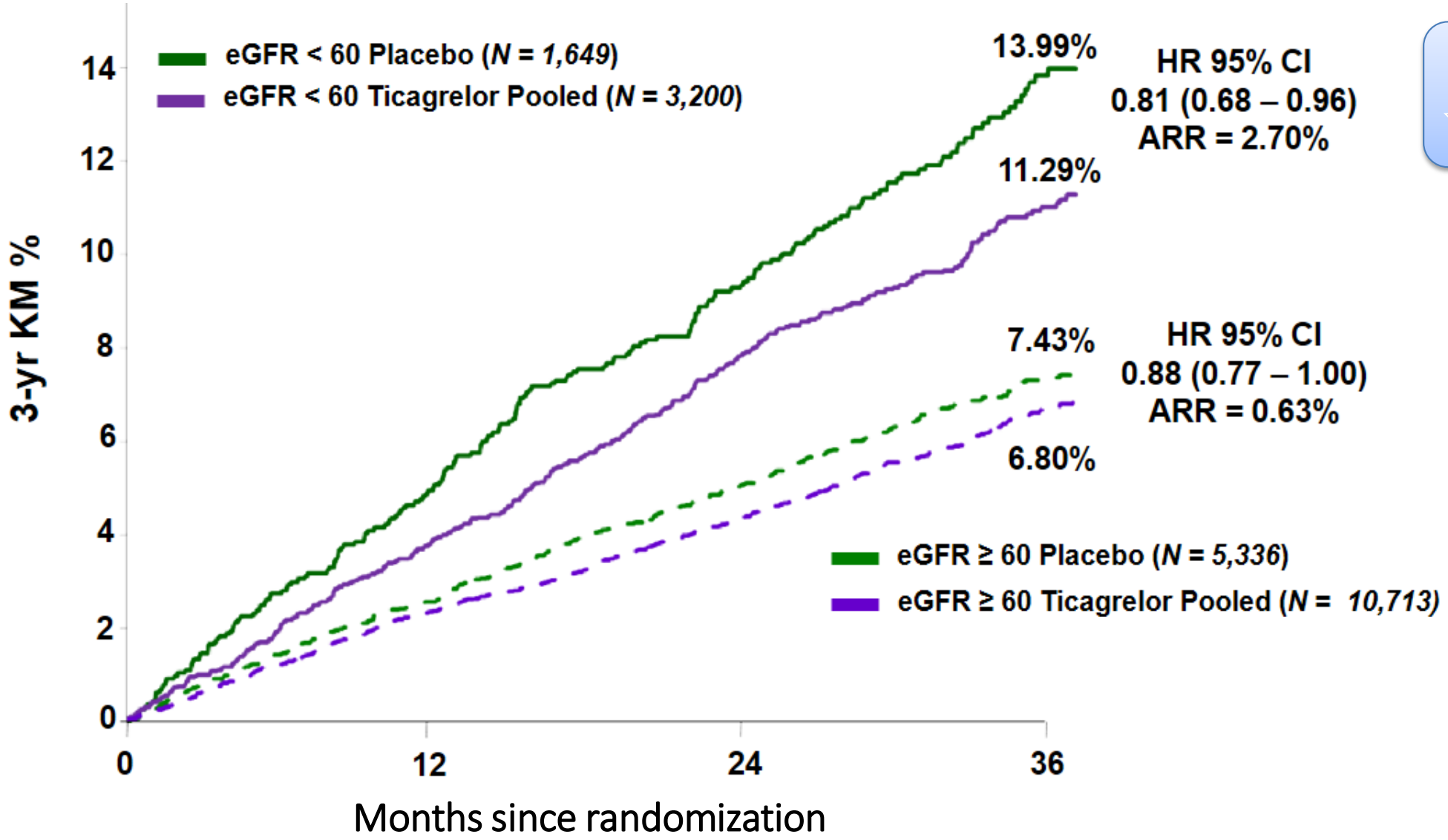
Data on file: Promomats Approval ID REF-3549

MACE in DM patients



Bonaca MP, Bhatt DL, Cohen M, et al. Sabatine MS. NEJM.2015.

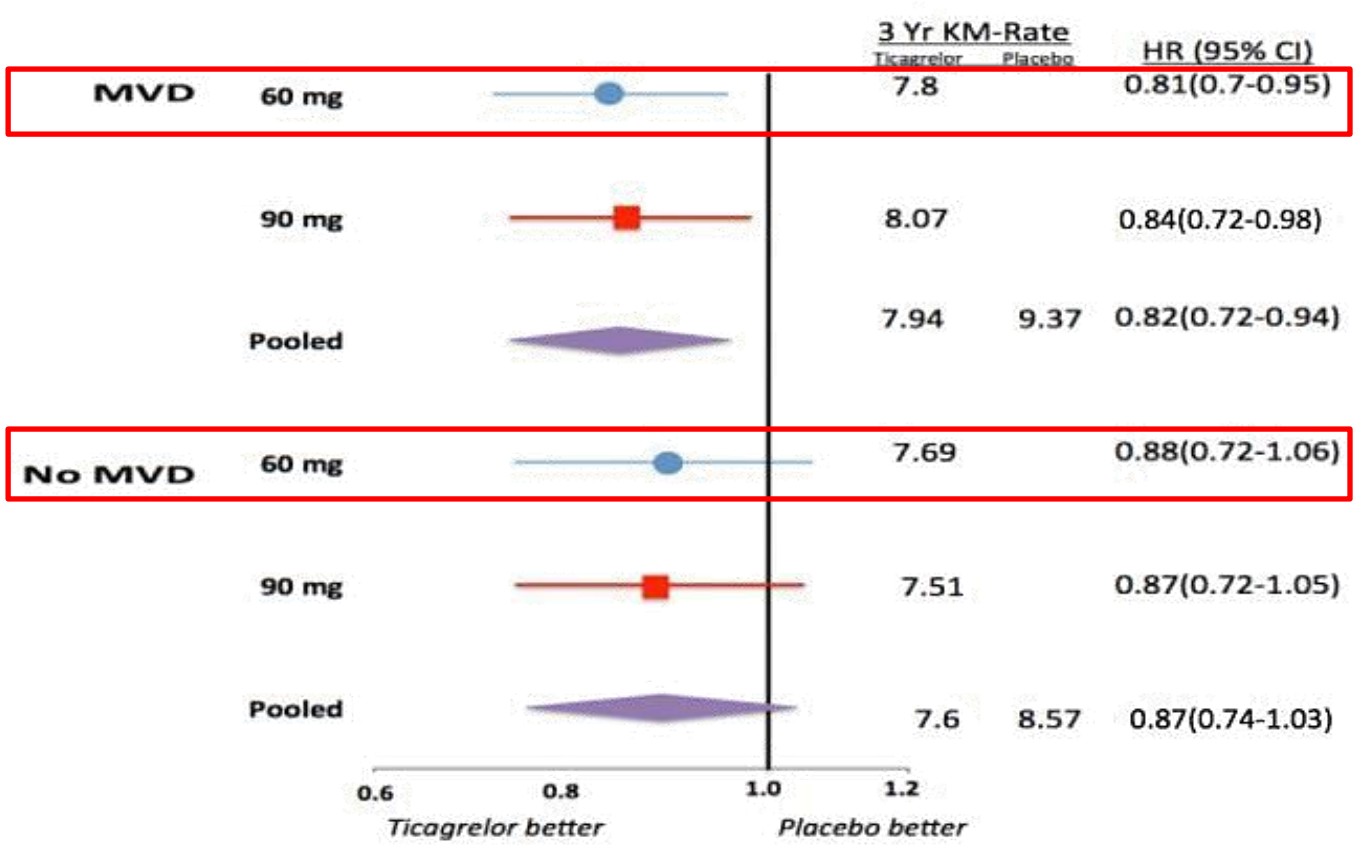
MACE in CKD patients



RRR 19%

Magnani et al, Eur. Heart J. 2016 Jan 21;37(4):400-8

In patients with prior MI and MVD

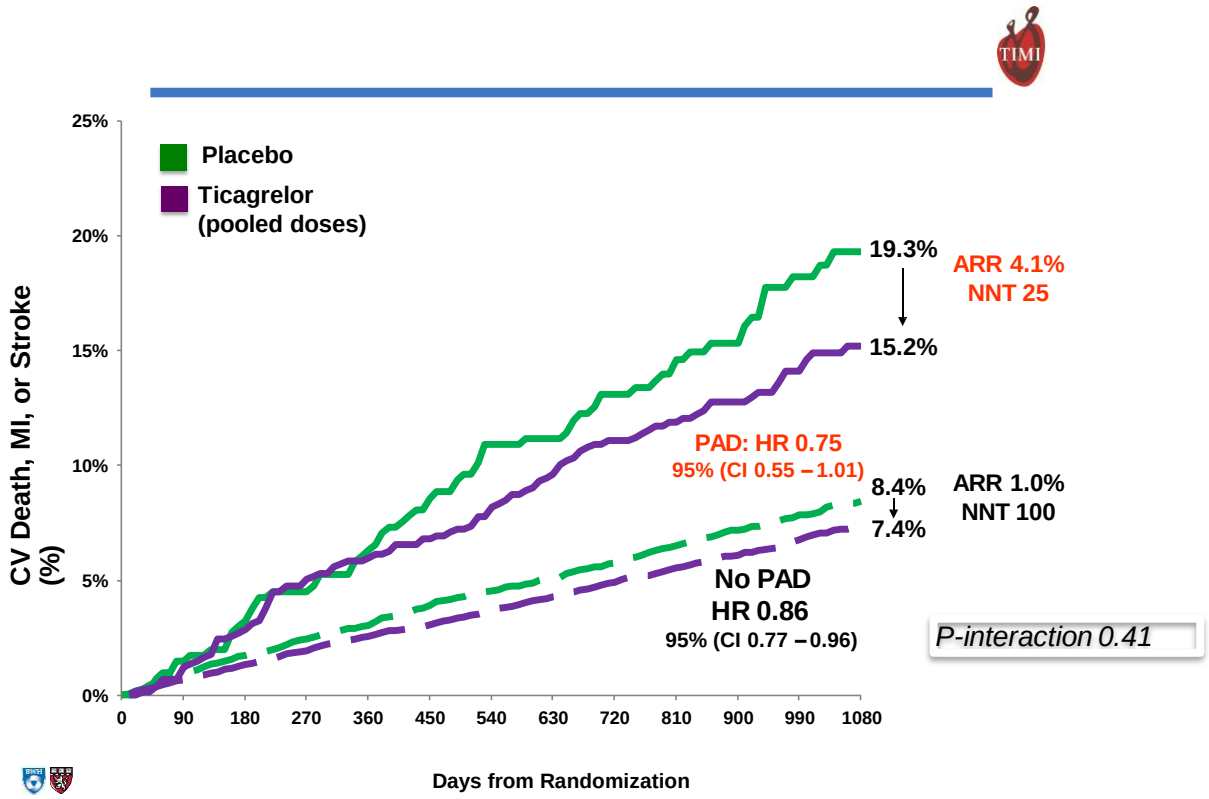


RRR 19%

RRR 12%

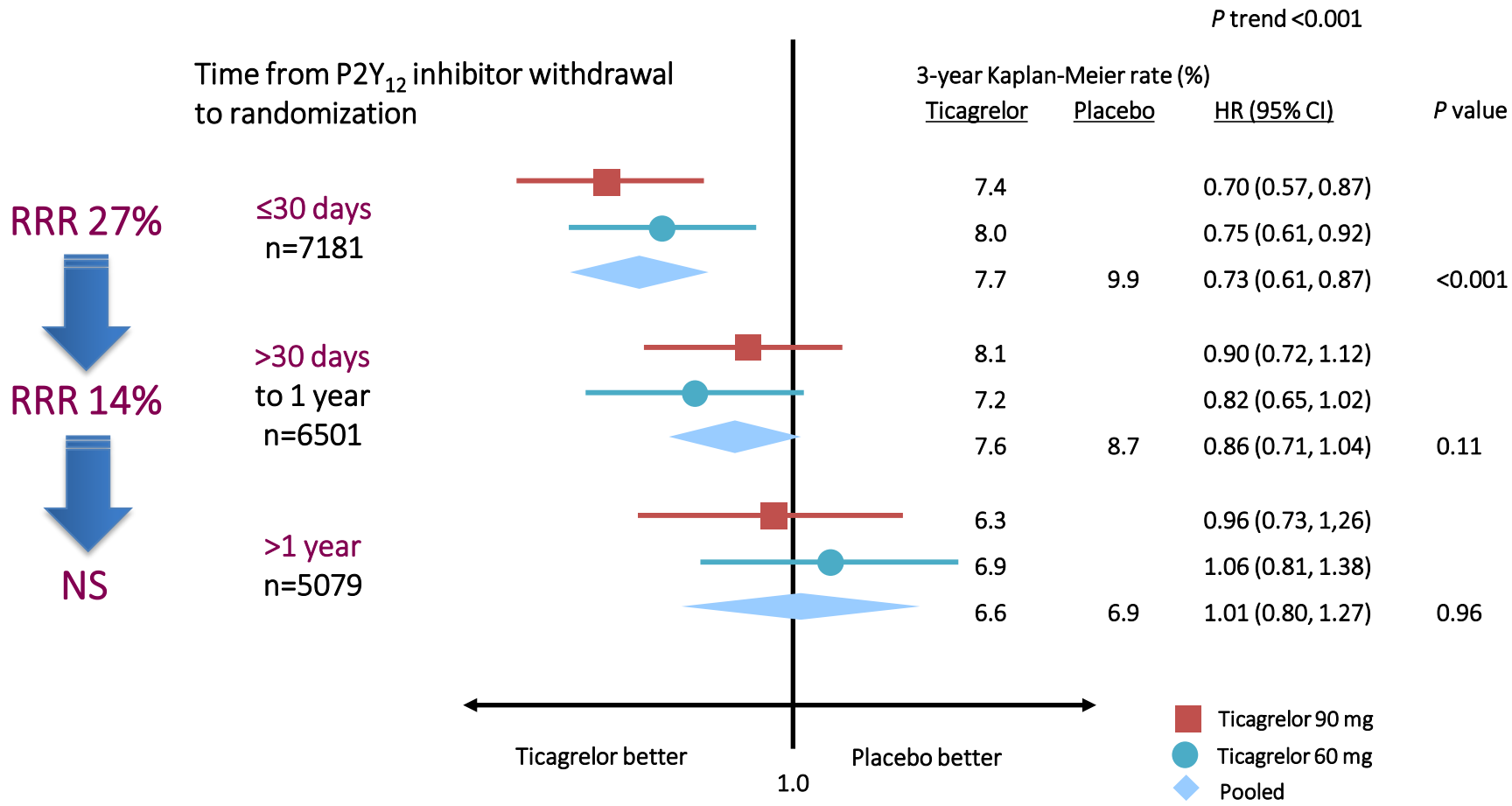
ACC 2016 - Session Title: Stable Ischemic Heart Disease: Diagnostic Dilemmas and Therapeutic Twists; Abstract Category: 39. Stable Ischemic Heart Disease: Therapy
Presentation Number: 1220-100

I pazienti con PAD



MACE at 3 years by time from $P2Y_{12}$ withdrawal

MAGGIORE BENEFICO NEL PZ CHE RIPRENDE SUBITO DOPO LA FINE DELL'ANNO DI TERAPIA E COMUNQUE ENTRO 30 GG



Bonaca MP et al. Eur Heart J 2015:doi:10.1093/eurheartj/ehv531

PEGASUS-TIMI 54 subanalysis EU label population:

Primary and secondary outcomes – patients with ≤2 years from qualifying MI or ≤1 year from prior ADP receptor inhibitor treatment (efficacy cohort)

Outcome	Ticagrelor 60 mg bid N=5388		Placebo N=5391		Hazard ratio (95% CI)	*P* value	RRR
	n	3 year KM%	n	3 year KM%			
Composite of CV death, MI or stroke	373	7.9	463	9.6	0.80 (0.70–0.91)	0.001	20%
CV death	119	2.6	167	3.6	0.71 (0.56–0.90)	0.0041	29%
MI	230	4.8	274	5.6	0.83 (0.70–0.99)	0.041	
Stroke	71	1.5	95	2.0	0.74 (0.55–1.01)	0.058	
All-cause mortality	206	4.4	256	5.4	0.80 (0.67–0.96)	0.018	20%

Dellborg M et al. Eur Heart J 2017;38(suppl):794–795. Abs P3670 (Presented at ESC 2017)

Which drug for extended DAPT ?

Thienopyridines vs. Placebo[1]

- Clopidogrel (65.3%) Prasugrel (34.7%)

- Prasugrel mostly associated with 1st gen. DES (TL-PAS trial) in the DAPT trial[3] (2,191 / 3,456 of pts treated with prasugrel in the DAPT trial)

- Risk benefit profile of extended DAPT duration in the DAPT trial dependent on the type of stent implanted

Ticagrelor vs. Placebo[2]

- Ticagrelor (100%)

- Trend towards mortality benefit

- Not related to stent implantation

[1]Mauri L et al. NEJM 2014
[2]Bonaca M et al. NEJM 2015
[3] Garratt KN et al. Circulation 2015

Dual antiplatelet therapy duration in patients with acute coronary syndrome treated with percutaneous coronary intervention *(continued)*

ESC European Society of Cardiology

Recommendations	Class	Level
In patients with ACS who have tolerated DAPT without a bleeding complication, continuation of DAPT for longer than 12 months may be considered.	IIb	A
In patients with MI and high ischaemic risk 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.	IIb	B

[C] *Defined as ≥ 50 years of age, and one or more of the following additional high-risk features: age ≥ 65 yr, diabetes mellitus requiring medication, a 2° prior spontaneous MI, multivessel CAD, or chronic renal dysfunction (CrCl < 60 mL/min)*

29 – PEGASUS Trial (Bonaca M et al. N Eng J Med 2015)
115 – DAPT 2nd gen DES analysis (Hermiller JB et al. JACC Interv 2016)
142 – Class Effect meta-analysis (Costa F et al. Int J Cardiol 2015)

Valgimigli M et al. Eur Heart J. 2017

ESC European Society of Cardiology
European Heart Journal (2017) 0, 1–48
doi:10.1093/eurheartj/ehx419

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

PRECISE: rischio emorragico

Età
Hb
WBC
Cl Cr
Precedente emorragia

DAPT: rischio trombotico

Age,
Cigarette smoking
Diabetes mellitus
MI at presentation
Prior PCI or prior MI
Paclitaxel-eluting stent
Stent diameter <3 mm
CHF or LVEF <30%
Vein graft stent

Risk scores validated for dual antiplatelet therapy duration decision-making

ESC European Society of Cardiology

	PRECISE-DAPT score	DAPT score	
Time of use	At the time of coronary stenting	After 12 months of uneventful DAPT	
DAPT duration strategies assessed	Short DAPT (3–6 months) vs. Standard/long DAPT (12–24 months)	Standard DAPT (12 months) vs. Long DAPT (30 months)	
Score calculation	HB ≥2 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	Age ≥75 65 to <75 <65 Cigarette smoking Diabetes mellitus MI at presentation Prior PCI or prior MI Paclitaxel-eluting stent Stent diameter <3 mm CHF or LVEF <30% Vein graft stent	 −2 pt −1 pt 0 pt +1 pt +1 pt +1 pt +1 pt +1 pt +1 pt +2 pt +2 pt
Score range	0 to 100 points	−2 to 10 points	
Decision making cut-off suggested	Score ≥25 → Short DAPT Score <25 → Standard/long DAPT	Score ≥2 → Long DAPT Score <2 → Standard DAPT	
Calculator	www.precisedaptscore.com	www.daptstudy.org	

2017 ESC Focused Update on DAPT in Coronary Artery Disease, developed in collaboration with EACTS
(European Heart Journal 2017 - doi:10.1093/eurheartj/ehx419)

Use of risk scores as guidance for the duration of dual antiplatelet therapy

ESC European Society of Cardiology

«As a result, the application of these risk scores to decide upon DAPT duration remains problematic, as only limited data exist exploring their value to guide DAPT duration». (pag. 7)

«However, none of these risk prediction models have been prospectively tested in the setting of RCTs. Therefore, their value in improving patient outcomes remains unclear». (pag. 9)

s

improving patient outcomes remains unclear.

European Heart Journal (2016) 37, 353–364
doi:10.1093/eurheartj/ehv712

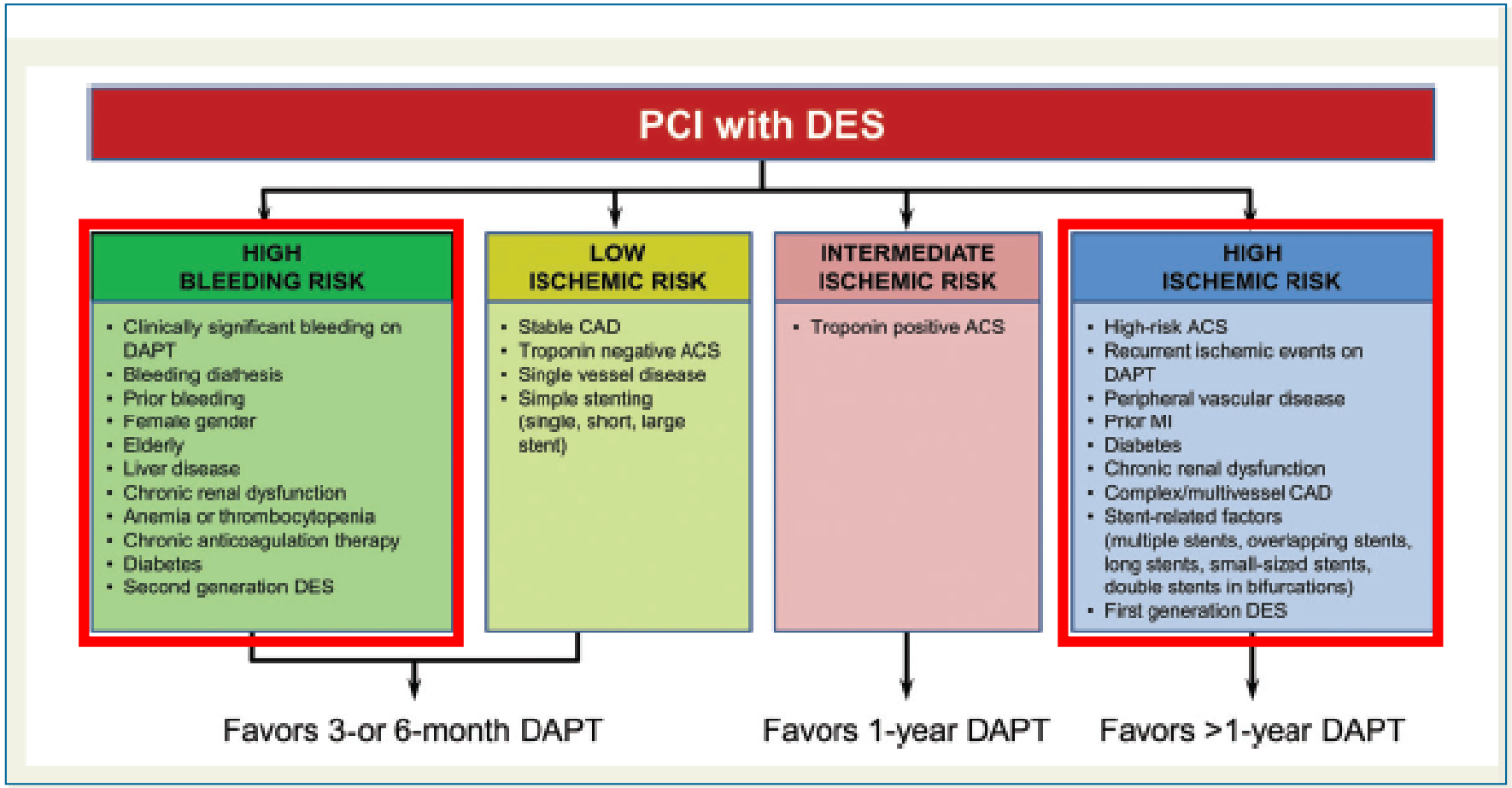
REVIEW

Clinical update

Optimal duration of dual antiplatelet therapy after drug-eluting stent implantation: conceptual evolution based on emerging evidence

Tullio Palmerini[1] and Gregg W. Stone[2]*

Stratificazione del rischio ischemico ed emorragico per la durata ottimale della DPT



PRECLUDE II: study rationale

- MI patients are at risk of subsequent ischaemic events and mortality.[1–5] DAPT ($P2Y_{12}$ inhibitor + low-dose ASA) is recommended to reduce the risk of ischaemic events post-MI,[6,7] with recent evidence supporting use of DAPT with ticagrelor beyond the initial 12 months post-MI.[5] DAPT is also associated with an increased risk of bleeding[3–5]
- **Risk factors for ischaemic and major bleeding events tend to overlap.**[8] Key risk factors for ischaemic events include MVD, diabetes mellitus, CKD, prior MI, and advanced age[5,9,10]
- Prior studies, with few exceptions, mostly looked at ischaemic or bleeding risk individually. **The combined effects** of these risk factors on ischaemic and bleeding risk have rarely been studied in a real-world population[8]
- The PRECLUDE II study set out to assess the combined **impact of risk factors** using **nationwide registries**, to see how different combinations of these factors influence incidence of recurrent ischaemic events and bleeding[8]

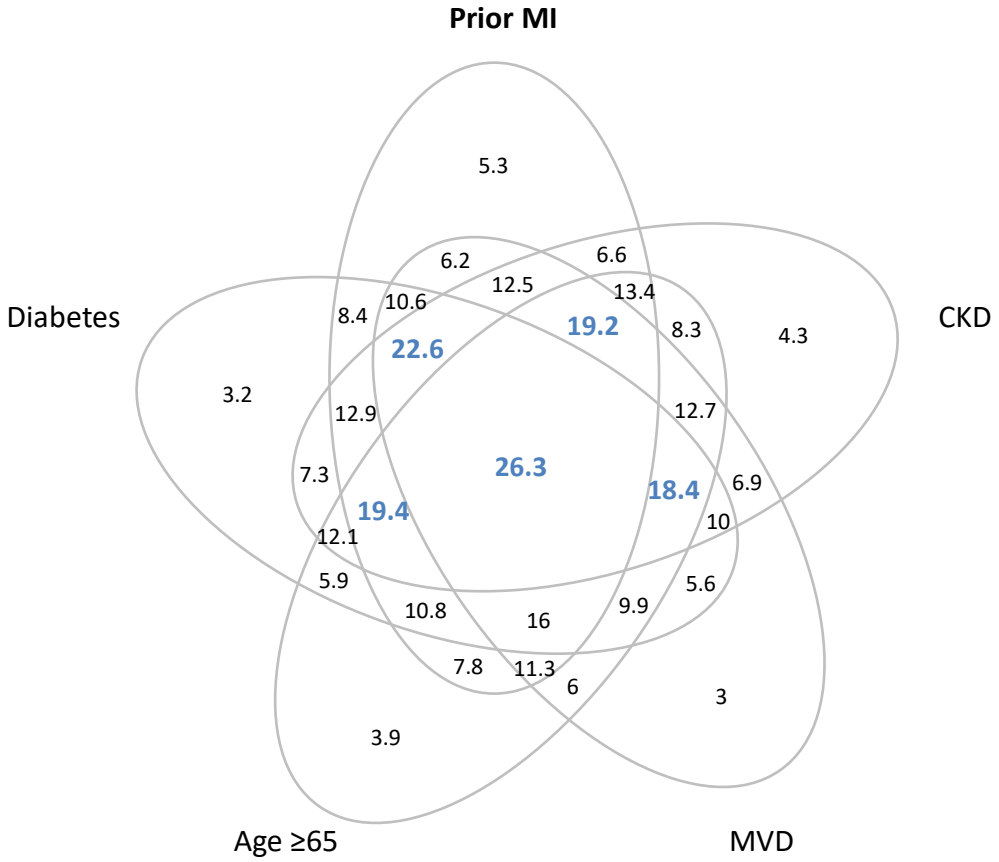
ASA = acetylsalicylic acid; CKD = chronic kidney disease; DAPT = dual antiplatelet therapy; MI = myocardial infarction; MVD = multivessel disease

1.Jernberg T et al. *Eur Heart J.* 2015;36:1163–70; 2. Rapsomaniki E et al. Presented at: European Society of Cardiology Meeting; August 30-September 3, 2014; Barcelona, Spain. 3. Wallentin L et al. *N Engl J Med*. 2009;361:1045–57; 4. Wiviott SD et al. *N Engl J Med*. 2007;357:2001–15; 5. Bonaca MP et al. *N Eng J Med*. 2015;372:1791–800; 6. Vaglimigli M et al. *Eur Heart J.* 2018;39:213-260; 7. Levine GN et al. *J Am Coll Cardiol.* 2016;68:1082–1115; 8. Lindholm D et al. Abstract and presentation at: ESC Congress; Aug 25–29 2018; Munich, Germany. *Eur Heart J.* 2018;39(suppl):265. Abs 1398.; 9. Bhatt DL et al. *JAMA*. 2010;304:1350–57; 10. Bansilal S et al. *J Am Coll Cardiol*. 2018;71:489–96

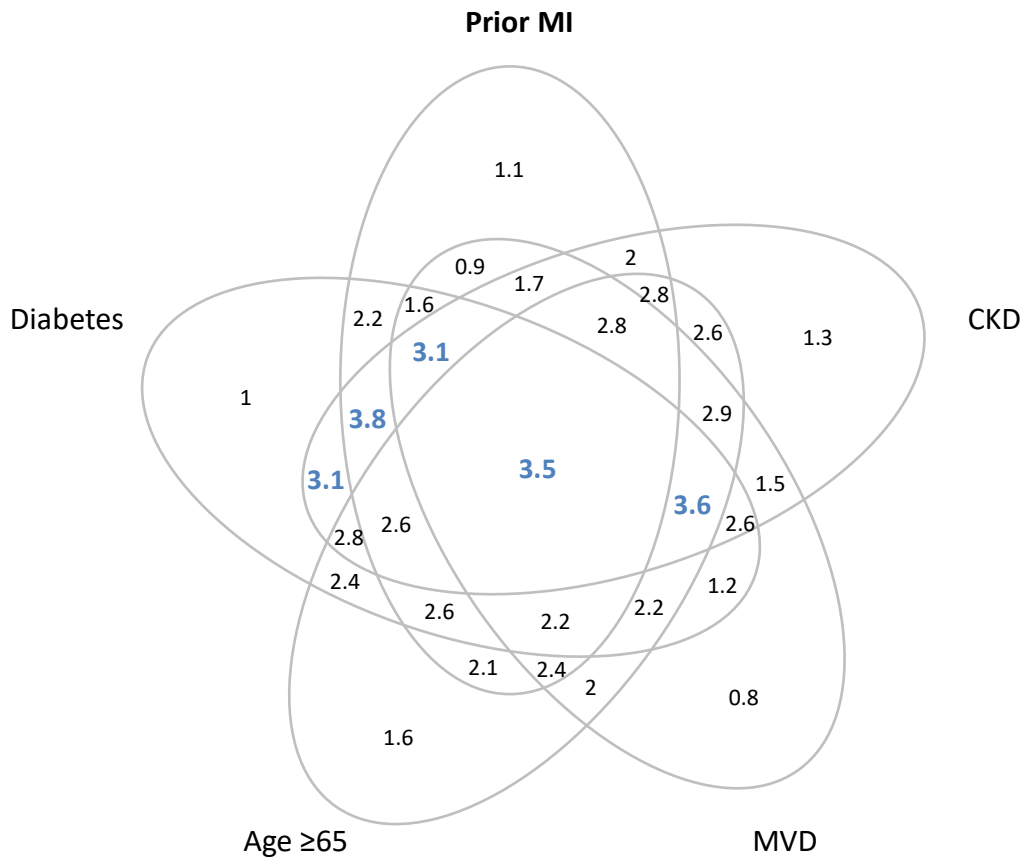
PRECLUDE II: results

Incidence of CV and bleeding events in relation to combination of risk factors

Incidence (events per 100 person-years) of MI, stroke of CV death*



Incidence (events per 100 person-years) of major bleeding*



*These data relate to those risk factors that were included in the analysis for the abstract, which did not include prior bleeding as a risk factor

CKD = chronic kidney disease; CV = cardiovascular; MI = myocardial infarction; MVD = multivessel disease

Lindholm D et al. *Eur Heart J.* 2018;39 (suppl):265. Abs 1398.

PRECLUDE II: authors' conclusions

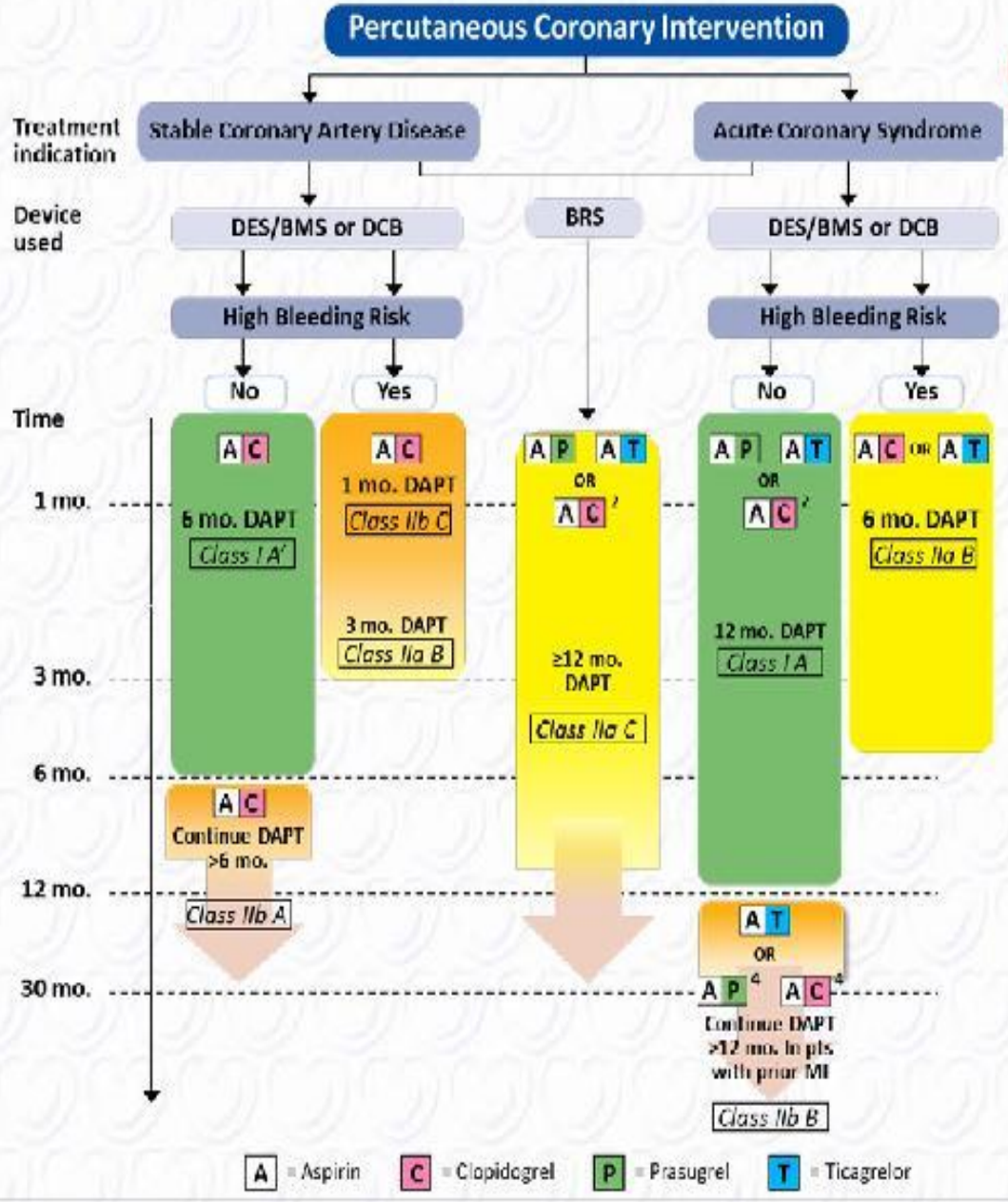
In patients with MI undergoing invasive management:

- The majority of patients have two or more established risk factors
- Presence of an increasing number of risk factors is associated with a higher incidence of ischaemic events
- Presence of all risk factors compared with one was associated with a 5–9 times increased incidence of CV events, and a 2–4 times increased incidence of major bleeding*
- Prior bleeding is a strong marker for subsequent major bleeding events

*These data relate to those risk factors that were included in the analysis for the abstract, which did not include prior bleeding as a risk factor
MI = myocardial infarction

Lindholm D et al. Abstract and presentation at: ESC Congress; Aug 25–29 2018; Munich, Germany. *Eur Heart J.* 2018;39(suppl):265. Abs 1398.

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



ESC European Society of Cardiology

2017 ESC Focused Update on DAPT in Coronary Artery Disease, developed in collaboration with EACTS (European Heart Journal 2017 - doi:10.1093/eurheartj/ehx419)

Question: Who, when and why to treat after 12 months?

Who

- Patients with prior MI at high risk:
  - Diabetes mellitus
  - Multiple prior MIs
  - Renal dysfunction
  - MVD / prior CABG
  - PAD
  - Smoker
  - CHF / low EF
- Not at high risk for bleeding
  - Prior/risk of ICH
  - Recent major Bleeding
  - Bleeding diathesis (es PTLpenia, neoplasia)
  - Need of anticoagulation
  - Low BMI / anemia
  - Stoke-TIA

Why

- To reduce long-term ischemic risk including:
  - New spontaneous MI including STEMI
  - Ischemic stroke including disabling events
  - Limb ischemic events in PAD
  - CV mortality as predominant cause of death

When

- Continue after started for MI and re-evaluate at each visit:
  - Recent bleeding?
  - Are they tolerating?
  - Are they adherent?
  - Contraindications (e.g. new dx of AF requiring anticoagulation)

Condivisione di un percorso di follow-up per i Pazienti ad alto rischio ischemico

Progetto Consensus – La gestione ottimale del paziente con sindrome coronarica acuta

atbv.it/progetto-consensus-la-gestione-ottimale-del-paziente-sindrome-coronarica-acuta/

CLAUDIO FRESCO, Presidente di ATBV

CLAUDIO CUCCIA, Webmaster e Past President

Cruciale è la dimissione ospedaliera, momento nel quale identificare il paziente infartuato ad alto rischio.
Andrebbero pertanto sottolineati nella **lettera di dimissione** i fattori di rischio coesistenti al fine di guidare il percorso di follow-up del paziente, ad esempio indicando nella suddetta lettera:
«Si raccomanda di valutare il prolungamento della DAPT dopo i primi 12 mesi di terapia nei pazienti con infarto e ulteriori fattori di rischio (età>65 anni, diabete, insufficienza renale cronica, malattia multivasale, precedenti infarti).»

Lettera di Dimissione

Position paper ANMCO: Gestione della dimissione ospedaliera

Mauro Mennuni[1] (Coordinatore), Michele Massimo Gulizia[2] (Coordinatore), Gianfranco Alunni[3], Antonio Francesco Amico[4], Francesco Maria Bovenzi[5], Roberto Caporale[6], Furio Colivicchi[7], Andrea Di Lenarda[8], Giuseppe Di Tano[9], Sabrina Egman[10], Francesco Fattirolli[11], Domenico Gabrielli[12], Giovanna Geraci[13], Giovanni Gregorio[14], Gian Francesco Mureddu[15], Federico Nardi[16], Donatella Radini[8], Carmine Riccio[17], Fausto Rigo[18], Marco Sicuro[19], Stefano Urbinati[20], Guerrino Zuin[18]

Tabella 18. Minimal data set per la lettera di dimissione.

1. Identificazione del paziente
2. Data di ricovero e di dimissione
3. Diagnosi d'ingresso e motivazione del ricovero
4. Diagnosi di dimissione
5. Problemi attivi in dimissione
6. Trattamento ricevuto
7. Prognosi
8. Lista completa e revisionata dei farmaci
9. Informazioni sui farmaci sospesi o iniziati durante il ricovero e motivazioni
10. Appuntamenti di follow-up
11. Contatti dello staff medico
12. Contatti del caregiver

Modificata da [85,86].

Tabella 23. Indicatori della lettera di dimissione.

1. Linee di indirizzo
2. Responsabilità
3. Contenuti:
   - Anagrafica
   - Diagnosi e storia clinica
   - Fattori di rischio
   - Rischio residuo
   - Capacità funzionale
   - Terapia alla dimissione
   - Interventi di educazione sanitaria espletati o programmati
   - Follow-up post-dimissione
   - Accordi con Servizi distrettuali e sociali
   - Contatti con medico o altro personale referente

Esempio di frase da inserire nella lettera di dimissione:
«Il paziente presenta criteri clinici (e.g. DM) e anatomici (e.g. MVD) che suggeriscono una rivalutazione al 12° mese per un'eventuale prosecuzione della DAPT»

G. Ital. Cardiol. 2016 Sep;17(9):0. doi: 10.1714/2448.25672.

Rossini et al., 2014: A Multidisciplinary Consensus Document on Follow-Up strategies for Patients Treated With Percutaneous Coronary Intervention

Catheterization and Cardiovascular Interventions 2015

Fig. 1

un programma di follow-up differenziato in base al livello di rischio del paziente, che evidenzia la necessità di una valutazione anche al dodicesimo mese dall'evento ischemico.

DOCUMENTO DI POSIZIONE "POST-PCI"

IPOTESI DI "TAILORED" FOLLOW-UP

Percorso "A"

Patients at high risk:
undergoing PCI for ACS with reduced LVEF (<45%),
or PCI in patients with a recent finding of low LVEF,
or PCI in patients with symptoms/signs of heart failure.

Percorso "B"

Patients undergoing PCI and presenting 1 of the following clinical or procedural characteristics:
ACS, diabetes mellitus, multivessel or left main or proximal left anterior descending artery disease, incomplete or suboptimal revascularization.

Percorso "C"

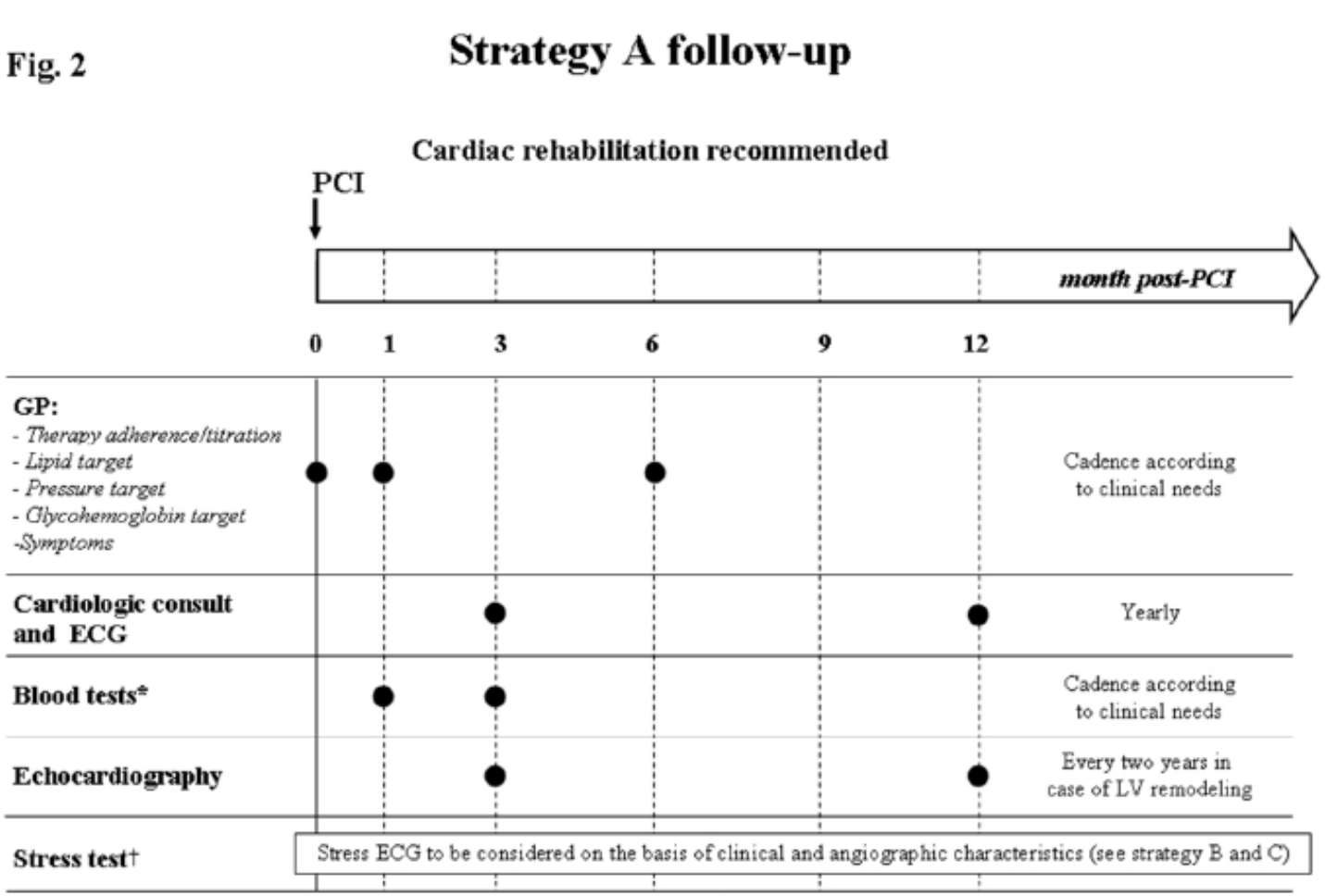
Patients without relevant comorbidities and submitted to complete, successful PCI.

R.Rossini et al, Catheter Cardiovasc Interv. 2014

Rossini et al., 2014: A Multidisciplinary Consensus Document on Follow-Up strategies for Patients Treated With Percutaneous Coronary Intervention

Patients at high risk:
undergoing PCI for ACS with reduced LVEF (<45%),
or PCI in patients with a recent finding of low LVEF,
or PCI in patients with symptoms/signs of heart failure.

Fig. 2

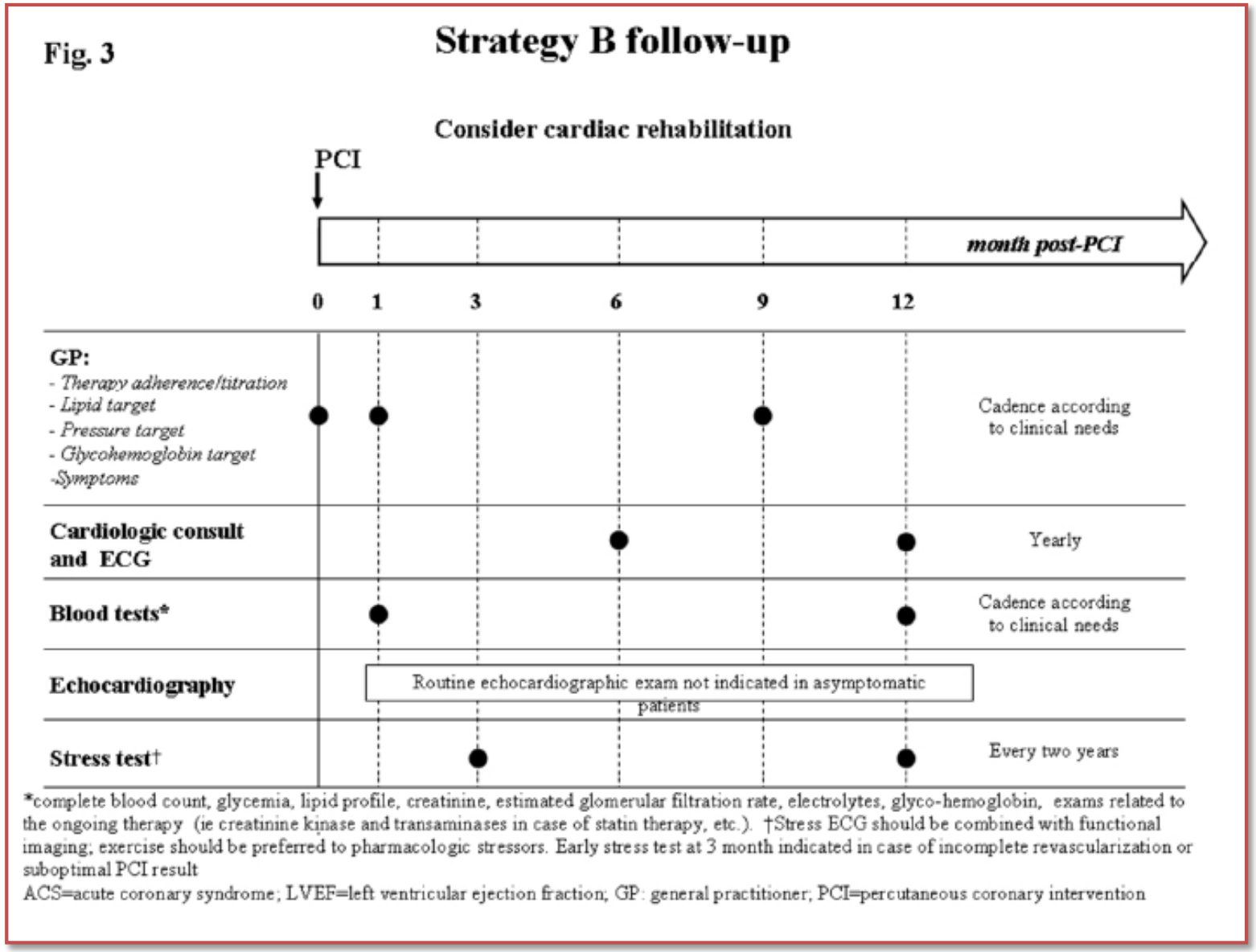


*complete blood count, glycemia, lipid profile, creatinine, estimated glomerular filtration rate, electrolytes, glyco-hemoglobin, exams related to the ongoing therapy (ie creatinine kinase and transaminases in case of statin therapy, etc.). †Stress ECG to be considered on the basis of clinical and angiographic characteristics (see strategy B and C). It should be combined with functional imaging; exercise should be preferred to pharmacologic stressors. Early stress test at 3 month indicated in case of incomplete revascularization or suboptimal PCI result
ACS=acute coronary syndrome; LVEF=left ventricular ejection fraction; GP: general practitioner; PCI=percutaneous coronary intervention

Rossini et al., 2014: A Multidisciplinary Consensus Document on Follow-Up strategies for Patients Treated With Percutaneous Coronary Intervention

Patients undergoing PCI and presenting 1 of the following clinical or procedural characteristics: ACS, diabetes mellitus, multivessel or left main or proximal left anterior descending artery disease, incomplete or suboptimal revascularization.

Fig. 3



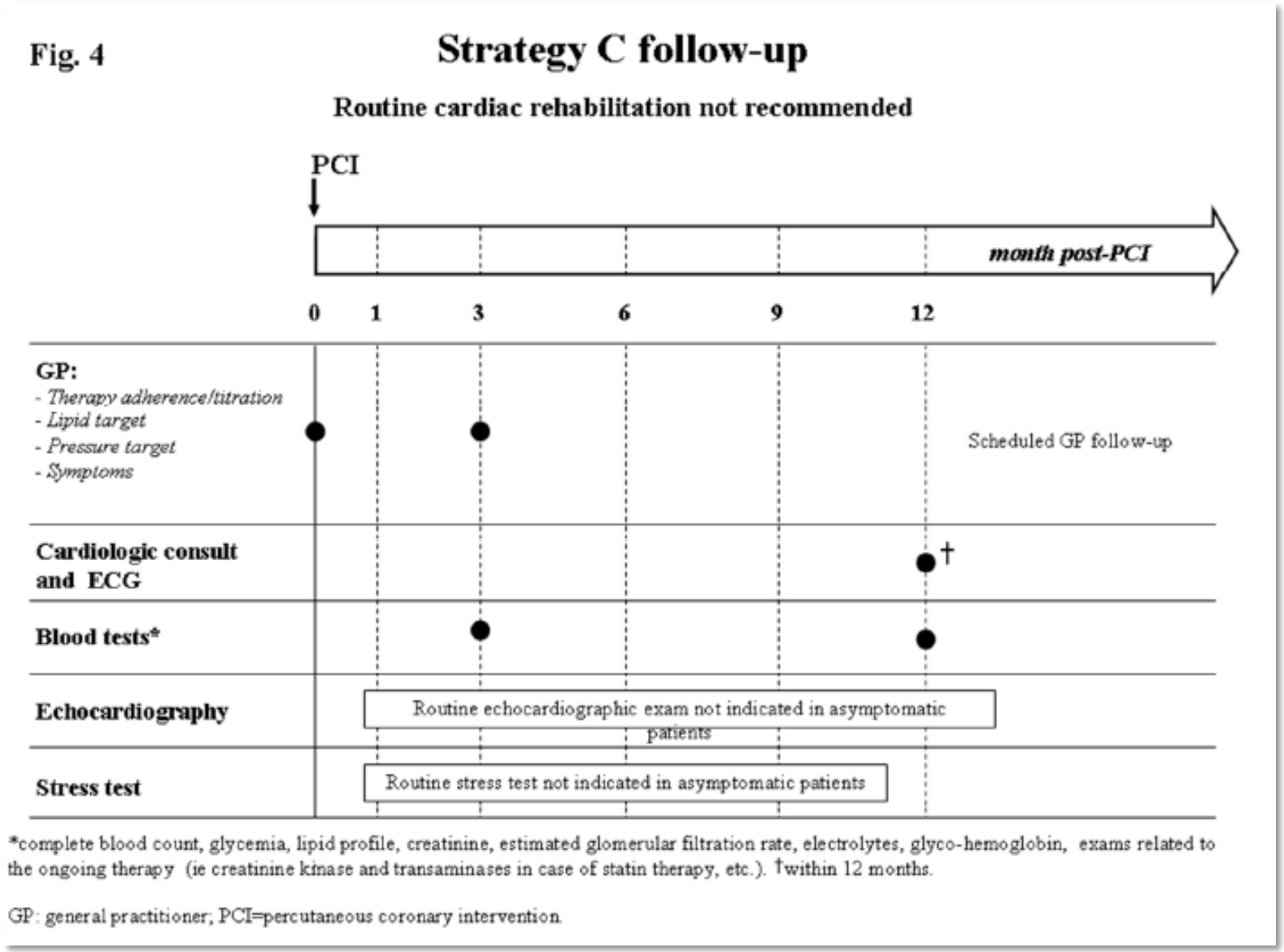
*complete blood count, glycemia, lipid profile, creatinine, estimated glomerular filtration rate, electrolytes, glyco-hemoglobin, exams related to the ongoing therapy (ie creatinine kinase and transaminases in case of statin therapy, etc.). †Stress ECG should be combined with functional imaging; exercise should be preferred to pharmacologic stressors. Early stress test at 3 month indicated in case of incomplete revascularization or suboptimal PCI result

ACS=acute coronary syndrome; LVEF=left ventricular ejection fraction; GP: general practitioner; PCI=percutaneous coronary intervention

Rossini et al., 2014: A Multidisciplinary Consensus Document on Follow-Up strategies for Patients Treated With Percutaneous Coronary Intervention

Patients without relevant comorbidities and submitted to complete, successful PCI.

Fig. 4



*complete blood count, glycemia, lipid profile, creatinine, estimated glomerular filtration rate, electrolytes, glyco-hemoglobin, exams related to the ongoing therapy (ie creatinine kinase and transaminases in case of statin therapy, etc.). †within 12 months.

GP: general practitioner; PCI=percutaneous coronary intervention.

Documento di consenso intersocietario ANMCO/ANCE/ARCA/GICR-IACPR/GISE/SICOA: La terapia antiaggregante a lungo termine nel paziente con malattia coronarica

Approvato anche da:

Consulta delle Società Cardiologiche (CSC)

ANMCO - ATBV - GICR-IACPR - GIEC - GISE - ITAHFA - SICOA - SICP - SIT

Michele Massimo Gulizia[1] (Chairman), Furio Colivicchi[2] (Co-Chairman), Maurizio Giuseppe Abrignani[3], Marco Ambrosetti[4], Nadia Aspromonte[5], Gabriella Barile[6], Roberto Caporale[7], Giancarlo Casolo[8], Emilia Chiuini[9], Andrea Di Lenarda[10], Pompilio Faggiano[11], Domenico Gabrielli[12], Giovanna Geraci[13], Alessio Gaetano La Manna[14], Aldo Pietro Maggioni[15], Alfredo Marchese[16], Ferdinando Maria Massari[17], Gian Francesco Mureddu[18], Giuseppe Musumeci[19], Federico Nardi[20], Antonio Vittorio Panno[21], Roberto Franco Enrico Pedretti[22], Massimo Piredda[23], Enrico Pusineri[24], Carmine Riccio[25], Roberta Rossini[19], Fortunato Scotto di Uccio[26], Stefano Urbinati[27], Ferdinando Varbella[28], Giovanni Battista Zito[29], Leonardo De Luca[30] (Co-Chairman)

FAR+:
età >65anni, diabete, IRC, coronaropatia
Multivasale, eventi ischemici ricorrenti

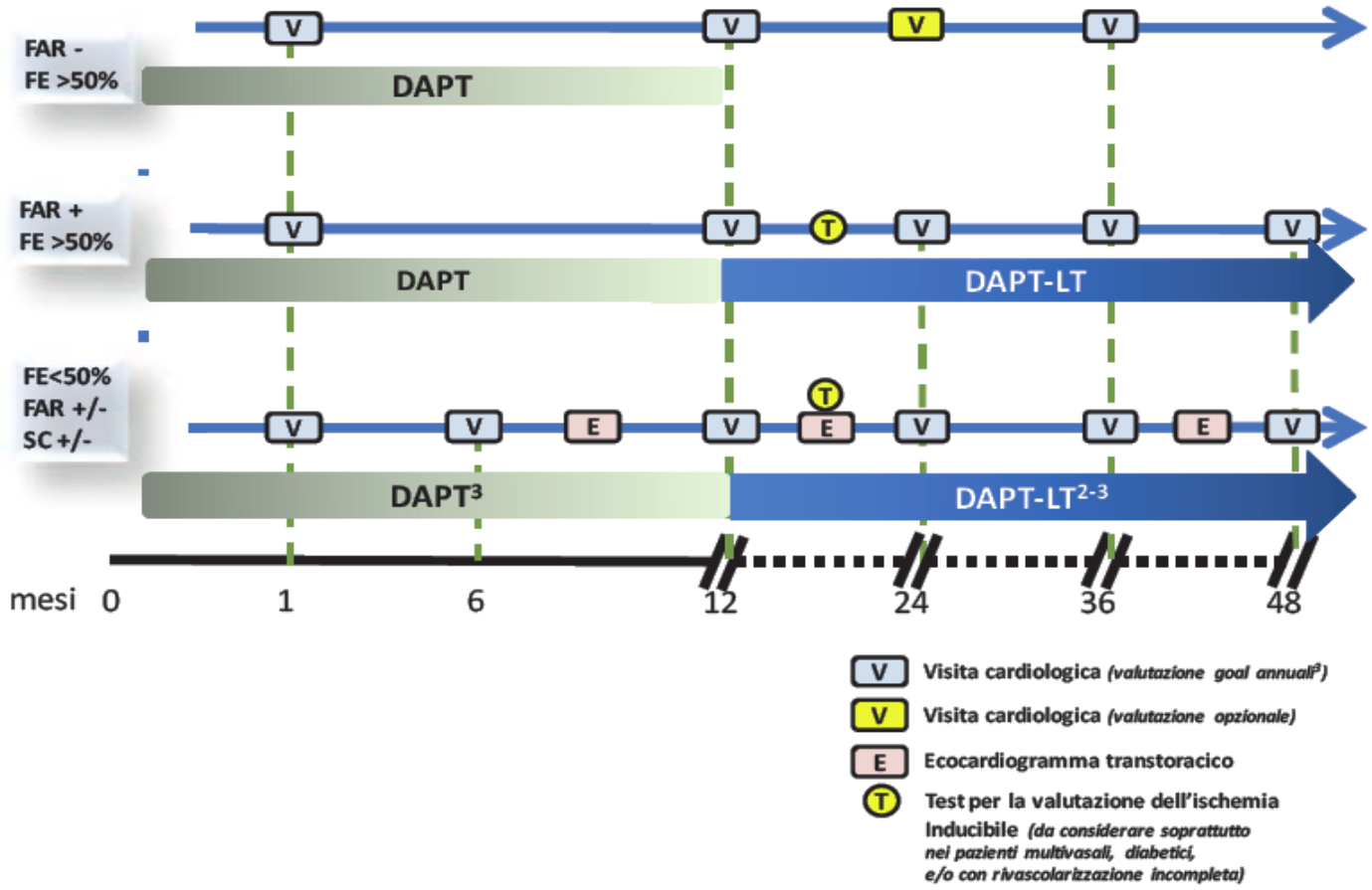


Figura 18. Percorso assistenziale nella fase post-acuta nel paziente con infarto miocardico con e senza sopraslivellamento del tratto ST[1].
DAPT, duplice terapia antiaggregante; DAPT-LT, duplice terapia antiaggregante a lungo termine; FAR, fattori aggiuntivi di rischio (età ≥65 anni, diabete mellito, insufficienza renale [clearance della creatinina 60 ml/min], coronaropatia multivasale, eventi ischemici ricorrenti); FE, frazione di eiezione; SC, scompenso cardiaco (segni e/o sintomi).
[1]In pazienti stabili, asintomatici, escludendo i pazienti con nota valvulopatia di grado moderato-severo e con FE ≤30% e indicazione all'impianto di defibrillatore e dopo opportuna valutazione del contesto organizzativo.
[2]Per i pazienti con FAR.
[3]Astensione dal fumo; attività fisica regolare (30 min, 5/7 giorni); circonferenza vita <89 cm nelle donne e <102 cm negli uomini; pressione arteriosa 140/70 mmHg; colesterolo LDL 70 mg/dl; colesterolo non-HDL <100 mg/dl; emoglobina glicata ≤7%; ottimizzazione della terapia bradicardizzante, antipertensiva e antianginosa; considerare il vaccino antinfluenzale e lo stato cognitivo + prosecuzione della DAPT e/o ottimizzazione della terapia con inibitori del sistema renina-angiotensina e antialdosteronici, ove indicato.

Documento di consenso intersocietario ANMCO/ANCE/ARCA/GICR-IACPR/GISE/SICOA: La terapia antiaggregante a lungo termine nel paziente con malattia coronarica

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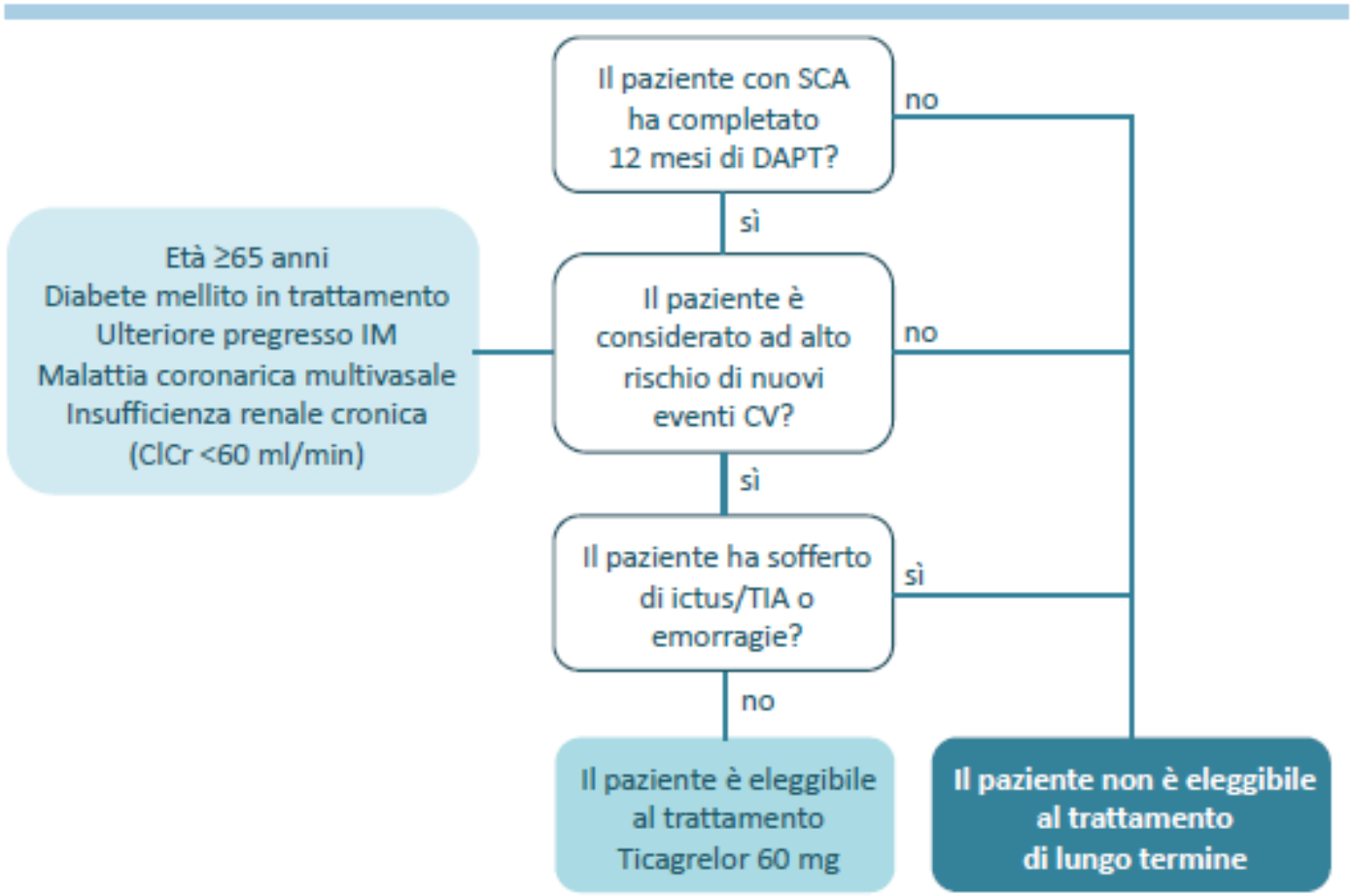
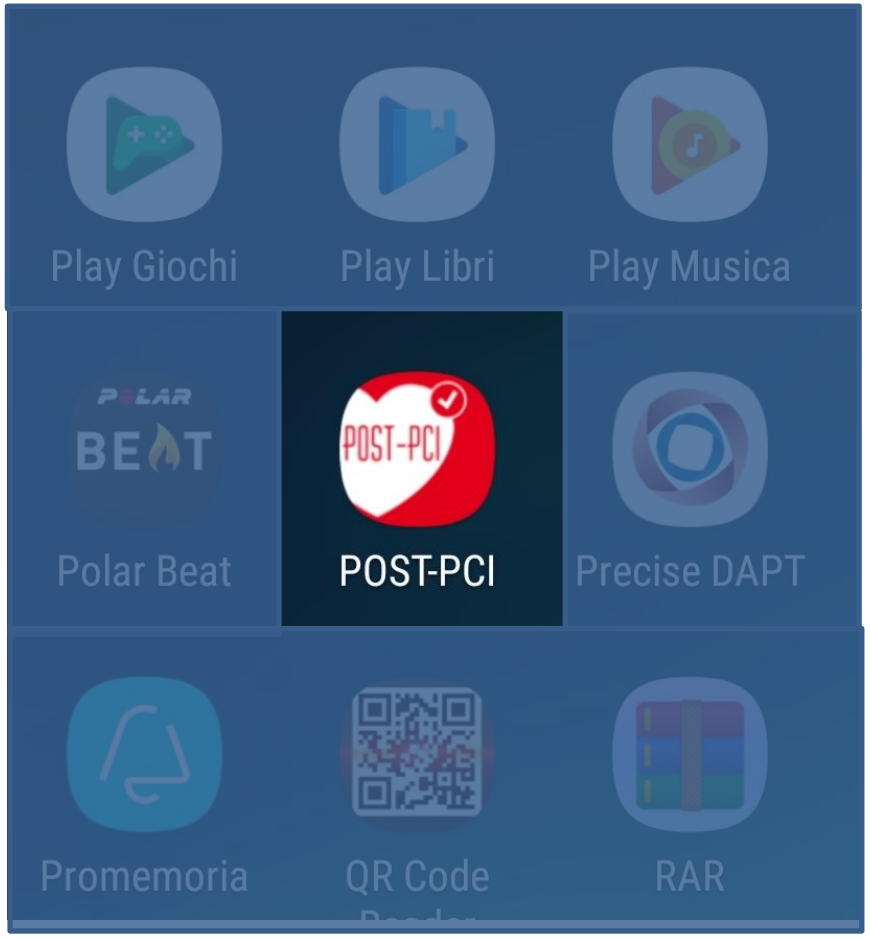


FIgura 19. Flow-chart decisionale.
ClCr, clearance della creatinina; CV, cardiovascolari; DAPT, duplice terapia antiaggregante; SCA, sindrome coronarica acuta; TIA, attacco ischemico transitorio.

POST-PCI app



La presente applicazione consente di identificare il percorso di follow-up diagnostico strumentale ideale del paziente sottoposto a rivascolarizzazione coronarica per via percutanea.
Il percorso diagnostico terapeutico proposto in questa app si basa su un protocollo di follow-up selettivo con percorsi variabili in relazione a caratteristiche cliniche ed angiografiche riconosciute in letteratura come importanti fattori prognostici. Tale protocollo deriva da un Documento di Consenso intersocietario che ha coinvolto la Società Italiana di Cardiologia Invasiva (GISE), l'Associazione Nazionale Medici Cardiologi Ospedalieri (ANMCO), la Società Italiana di Cardiologia Riabilitativa (GIRC) e la Società Italiana dei Medici di Medicina Generale (SIMMG) e si ispira alle più recenti Linee Guida Internazionali sull'argomento.
L'applicazione ideata da Roberta Rossini per GISE Lombardia è da considerarsi ad uso esclusivo da parte di personale medico.

INIZIA

Take home message per un grogramma di F-U condiviso

- Esiste un rischio ischemico residuo dopo 12 mesi di DAPT
- Segnalare il rischio residuo nella relazione di dimissione
- Programmare un f-u differenziato sulla base del rischio del paziente
- Al controllo titolare la terapia, ottimizzare il controllo dei FR (pressione, assetto lipidico, Hb glicata), attenzionare i sintomi, valutare riabilitazione
- A 12 mesi rivalutare il rapporto rischio trombotico ed emorragico (DINAMICO) per decidere sul prolungamento della DAPT