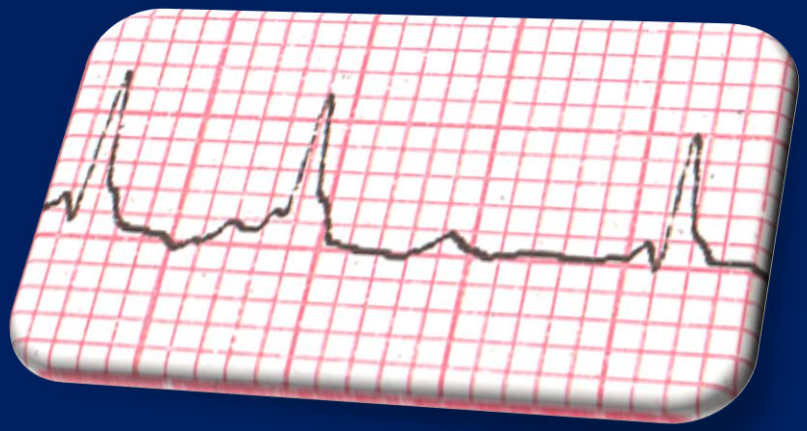
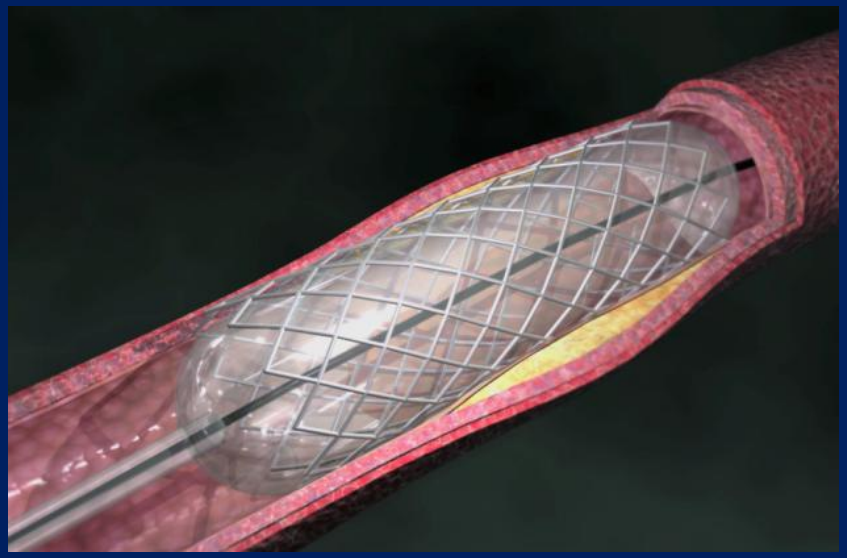
Antithrombotic therapy in CAD patients with concomitant NAFV: why and for whom ?





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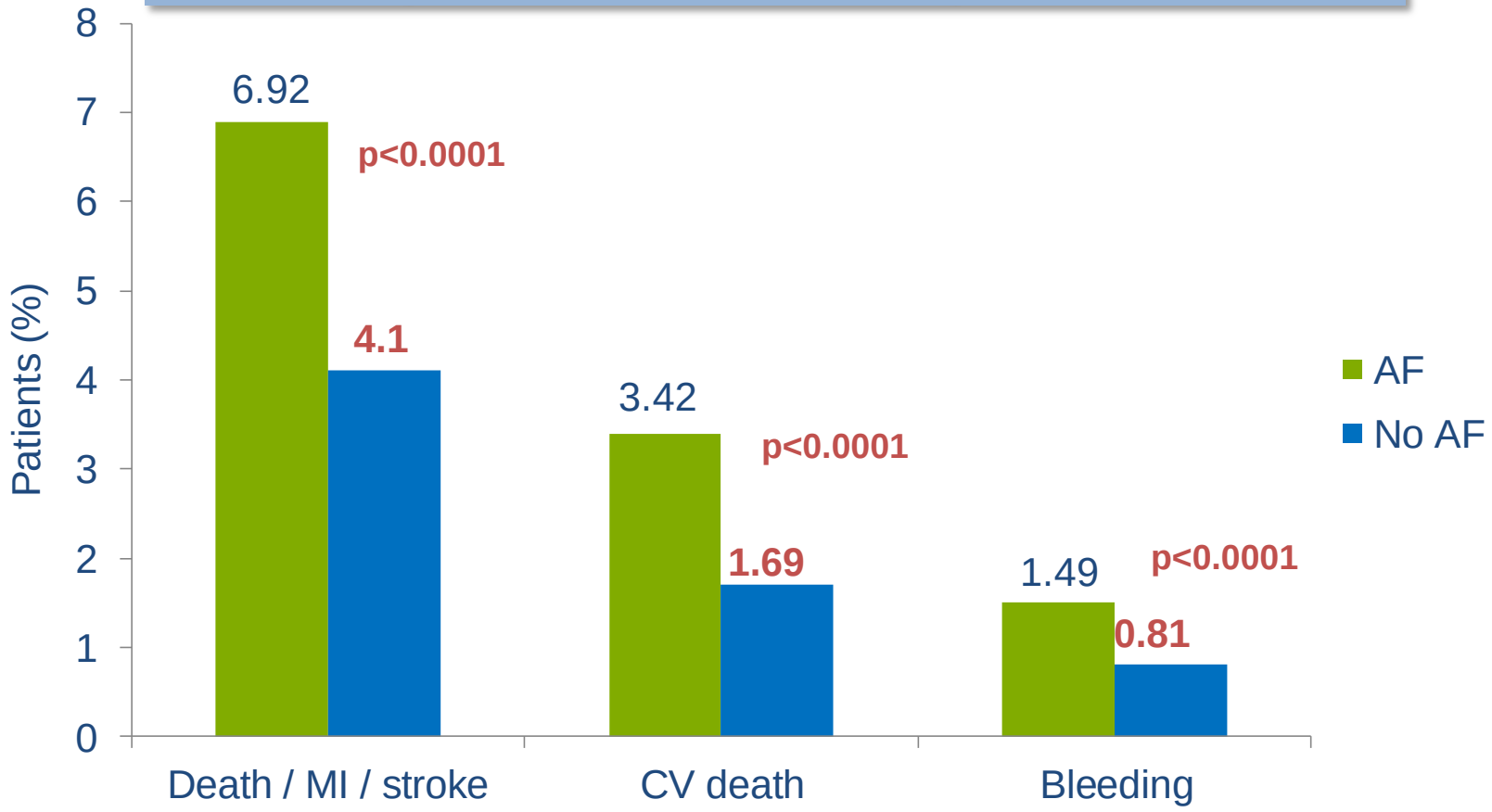
Patients with CAD and AF have Worse Outcomes than Patients with CAD without AF

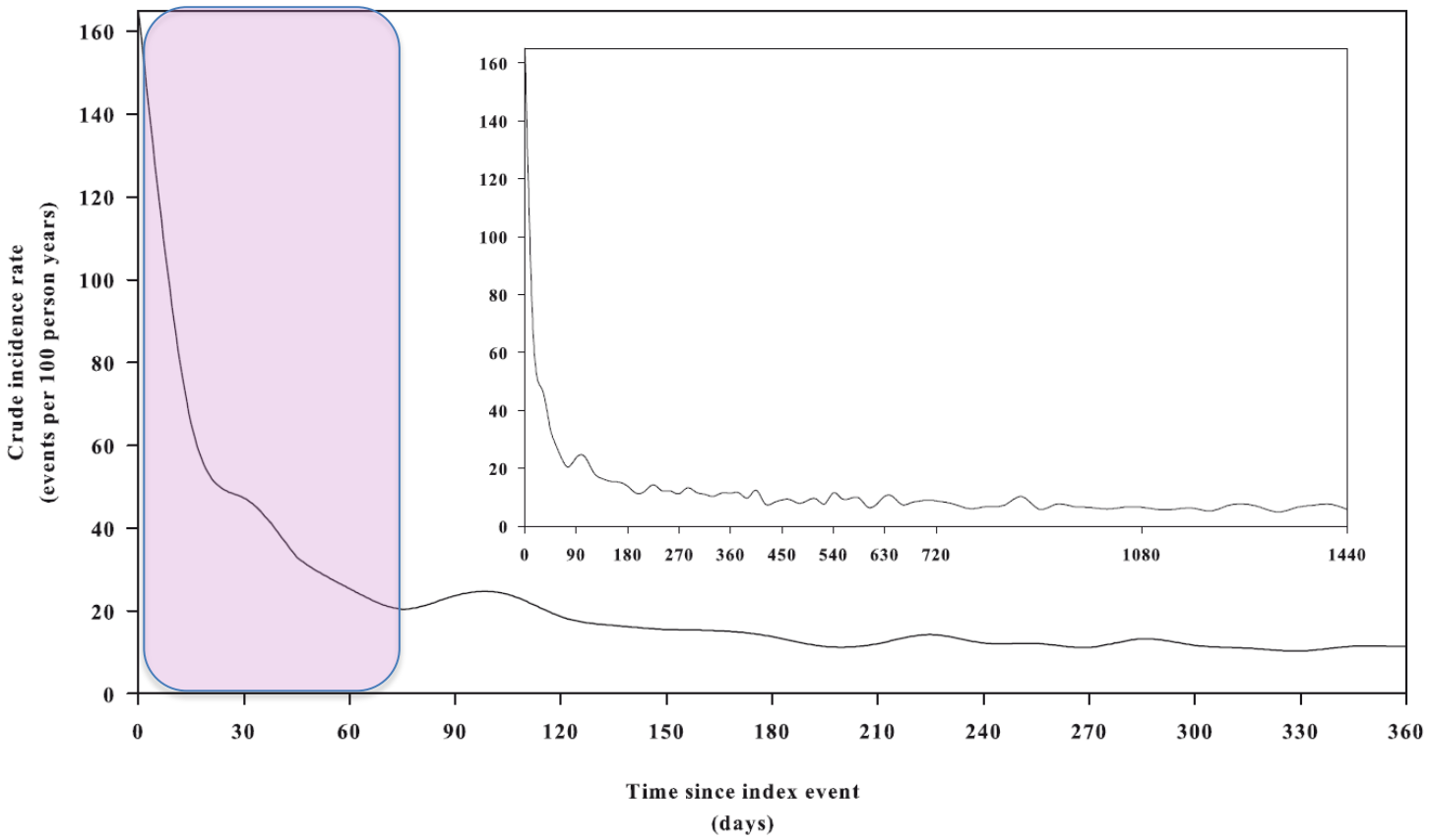
REACH registry*, outcomes at 1 year
37,724 patients with CAD: 12.5% prevalence of AF



*REduction of Atherothrombosis for Continued Health (REACH) Registry: International, prospective cohort of 68,236 stable outpatients with established atherothrombosis or >3 atherothrombotic risk factors. CV, cardiovascular

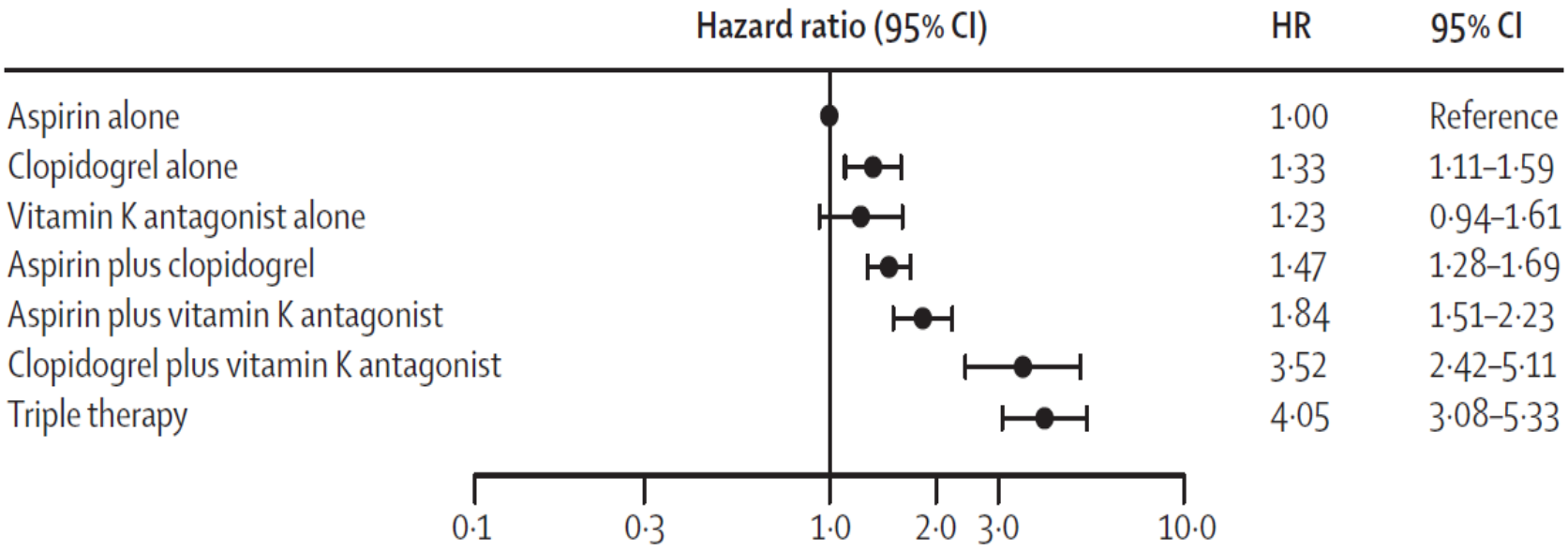
Goto S *et al., Am Heart J* 2008;156:855-863.

Crude event rates in AF after MI or PCI



Circulation. 2014;129:1577-1585

Risk of bleeding with multiple antithrombotics – *following myocardial infarction*



12.0% major bleeding per year

Lancet. 2009 Dec 12;374(9706):1967-74.

Question #1

A 65-year-old woman is admitted for NSTEMI with a markedly elevated high-sensitivity cardiac troponin level [350 ng/L (ULN <14 ng/L)] and an invasive strategy is planned. She is on vitamin K antagonist (VKA) for atrial fibrillation with prior stroke and the INR is 2.7. The CHA_2DS_2-VASc score is 4 and radial access seems feasible. **How do you manage the timing of angiography?**

Early angiography on VKA

Delayed angiography after switch

Answer #1

Angiography should be performed on VKA, with no need for additional anticoagulation at the time of the procedure. Radial access is recommended. Interruption of VKA and bridging with parenteral anticoagulation should be avoided, given the increased risk of bleeding.

Early angiography on VKA

Delayed angiography after switch

Question #2

A 65-year-old woman is admitted for NSTEMI with a markedly elevated high-sensitivity cardiac troponin level [350 ng/L (ULN <14 ng/L)] and an invasive strategy is planned. She is on vitamin K antagonist (VKA) for atrial fibrillation with prior stroke and the INR is 2.7. The CHA_2DS_2-VASc score is 4 and radial access seems feasible. **How do you manage anticoagulation therapy?**

Parenteral Anticoagulation

No Parenteral Anticoagulation

Anwer #2

•Angiography should be performed on VKA, with no need for additional anticoagulation at the time of the procedure.

Parenteral Anticoagulation

No Parenteral Anticoagulation

Question #3: Would the lack of radial access in this patient change your strategy?

YES

NO

Answer #3

If radial access is not feasible, VKA may be discontinued and angiography may be postponed until the INR is 2. If there is

YES

NO

Recommendations for invasive coronary ngiography and revascularization in NSTE-ACS

2011 NSTEACS GL ➔ No formal reco for access site selection

The choice of vascular access site depends on operator expertise and local preference, but, due to the large impact of bleeding complications on clinical outcome in patients with elevated bleeding risk, the choice may become important. Since the radial approach has been shown to reduce the risk of bleeding when compared with the femoral approach, this access site should be preferred in patients at high risk of bleeding provided the operator has sufficient experience with this technique

page 3007

2015 NSTEACS GL

Recommendations	Class	Level	Ref.
In centres experienced with radial access, a radial approach is recommended for coronary angiography and PCI.	I	A	MATRIX

Question #4: Would you pretreat this patient with oral $P2Y_{12}$ inhibitors?

YES

NO

Answer #4

Pretreatment is not encouraged up until the revascularization stratety is clear.

YES

NO

Patients on OAC

Recommendations for combining antiplatelet agents and anticoagulants in NSTE-ACS patients requiring chronic oral anticoagulation		
Recommendations	**Class[a]**	**Level[b]**
In patients with a firm indication for OAC (e.g. atrial fibrillation with CHA_2DS_2-VASc score ≥2, recent venous thromboembolism, LV thrombus, or mechanical valve prosthesis), OAC is recommended in addition to antiplatelet therapy.	I	C
An early invasive coronary angiography (within 24 hours) should be considered in moderate to high risk patients[c] irrespective of OAC exposure to expedite treatment allocation (medical vs PCI vs CABG) and to determine the optimal antithrombotic regimen.	IIa	C
Initial dual antiplatelet therapy with aspirin plus a $P2Y_{12}$ inhibitor in addition to OAC before coronary angiography is not recommended.	III	C

Question #5: Would you use DES?

YES

NO

Question #5: Would you use DES?

YES

NO

Drug Eluting Stent

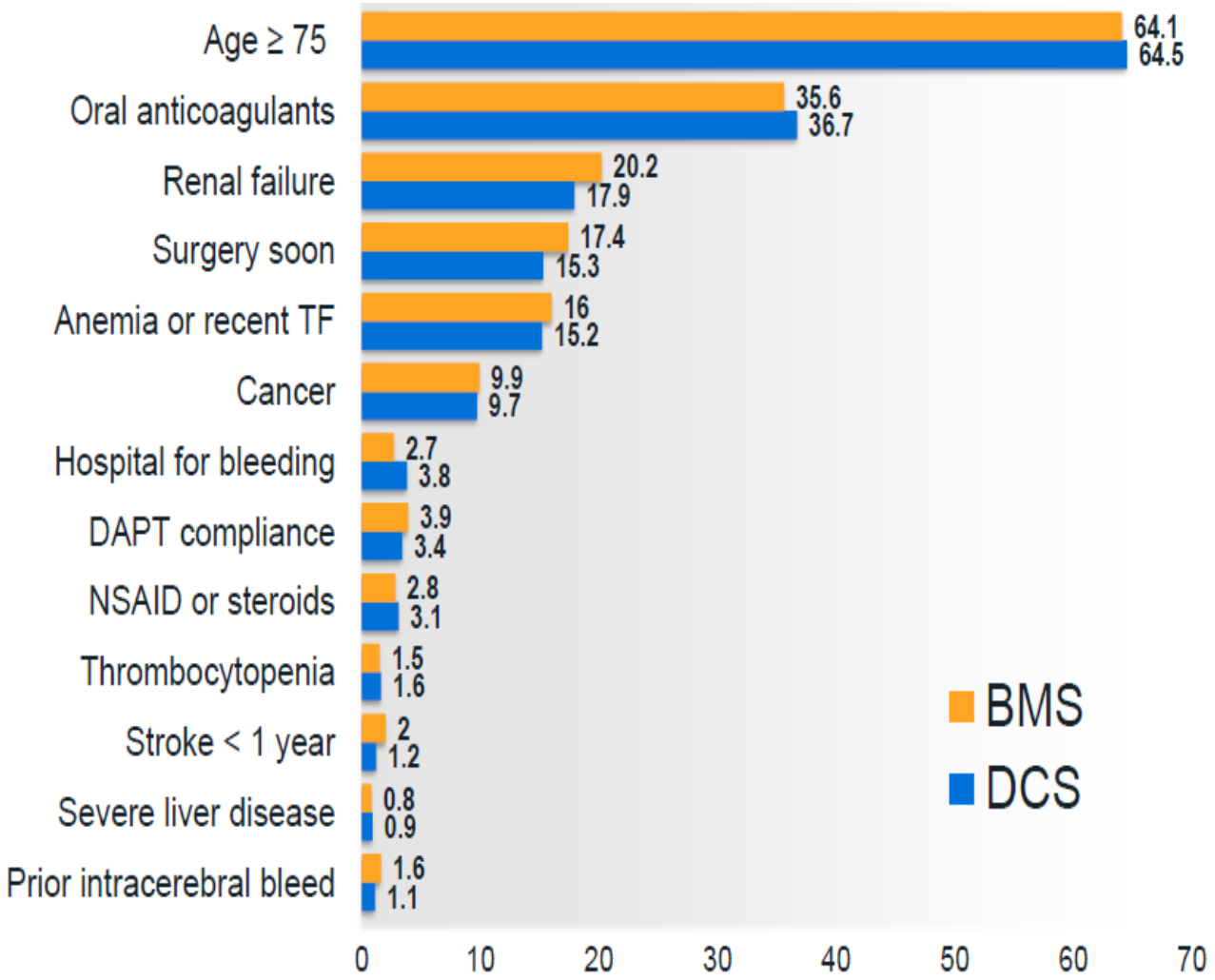
Recommendations	Class[a]	Level[b]
In patients undergoing PCI, new-generation DESs are recommended.	I	A
In patients in whom a short DAPT duration (30 days) is planned because of an increased bleeding risk, a new-generation DES may be considered over a BMS.	IIb	B

Valgimigli M et al. J Am CollCardiol2015;65: 805–15

Anticoagulation during Stenting on OAC

Patients undergoing coronary stenting		
Anticoagulation		
During PCI, use of additional parenteral anticoagulation is recommended, irrespective of the timing of the last dose of all NOACs and if INR<2.5 in VKA-treated patients.	**I**	**C**
Uninterrupted therapeutic anticoagulation with VKA or NOACs should be considered during the periprocedural phase.	**IIa**	**C**

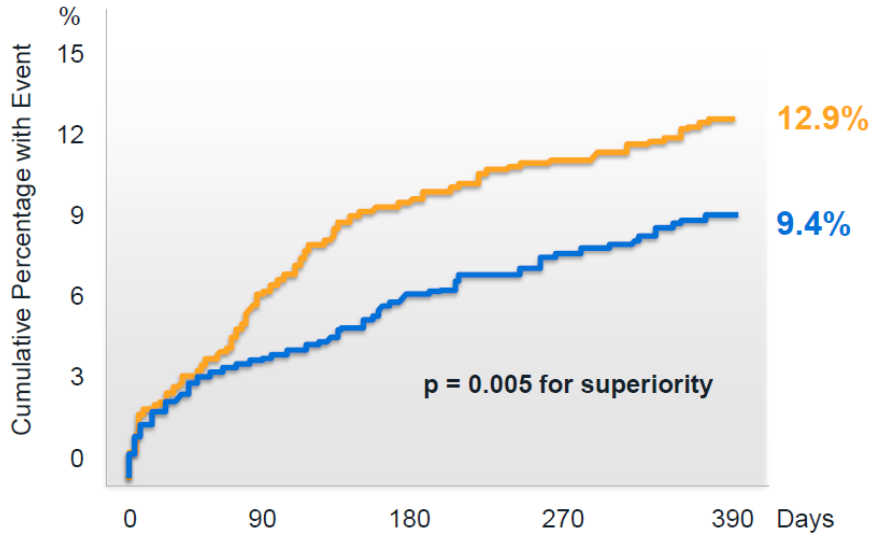
Leaders Free



Urban Ph et al. NEJM 2015

Leaders Free

Primary Safety Endpoint (Cardiac Death, MI, ST)



Number at Risk

DCS	1221	1146	1105	1081	1045
BMS	1211	1115	1066	1037	1000

Urban Ph et al. NEJM 2015

Question #6: An LAD lesion is eligible for coronary stenting. For how long triple therapy?

One month

Six months

Answer #6

HASBLED is 3

One month

Six months

Question #7

She has been on triple therapy (i.e. aspirin, clopidogrel and VKA) for 1 month and then on a combination of aspirin and VKA. At one year, she has been symptom-free since then (no bleeding and no ischemia). **Her primary care physician is asking whether aspirin can be stopped.**

YES

NO

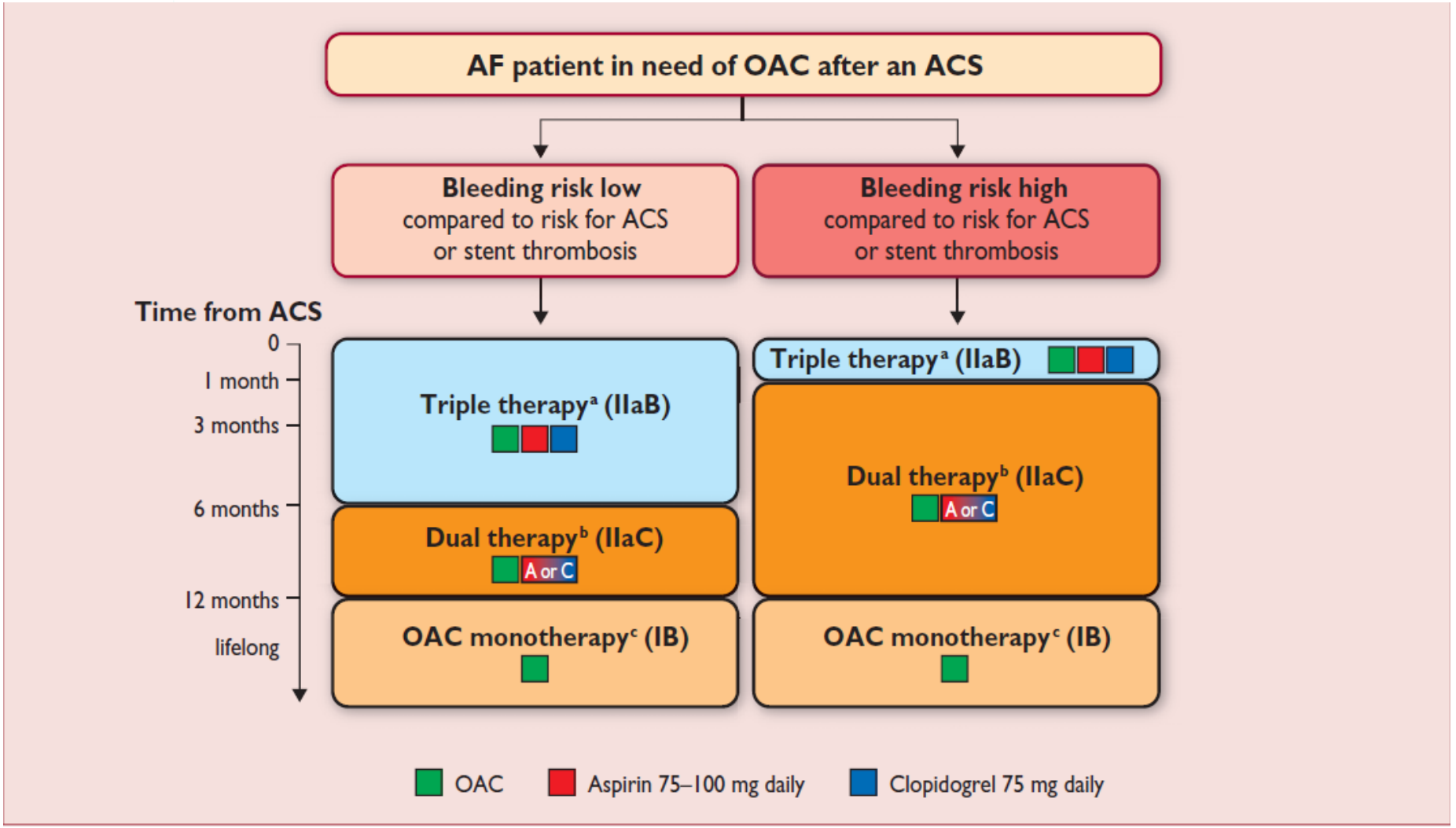
Answer #7

•Although this question has never been prospectively addressed, based on expert consensus, aspirin may be stopped because there are no high-risk features for a recurrent coronary event (e.g. three-vessel disease CAD, left main stenting, recurrent ischaemic symptoms).

YES

NO

2016 AFIB Guidelines



ACS = acute coronary syndrome; AF = atrial fibrillation; OAC = oral anticoagulation (using vitamin K antagonists or non-vitamin K antagonist oral anticoagulants); PCI = percutaneous coronary intervention.

[a]Dual therapy with OAC and aspirin or clopidogrel may be considered in selected patients, especially those not receiving a stent or patients at a longer time from the index event.

[b]OAC plus single antiplatelet.

[c]Dual therapy with OAC and an antiplatelet agent (aspirin or clopidogrel) may be considered in patients at high risk of coronary events.

Beyond one year

"...in very selected patients at high risk of ischaemic events:

- prior stent thrombosis on adequate antiplatelet therapy,
- stenting in the left main or last remaining patent coronary artery,
- multiple stenting in proximal coronary segments,
- two stents bifurcation treatment,
- or diffuse multivessel disease, especially in diabetic patients.

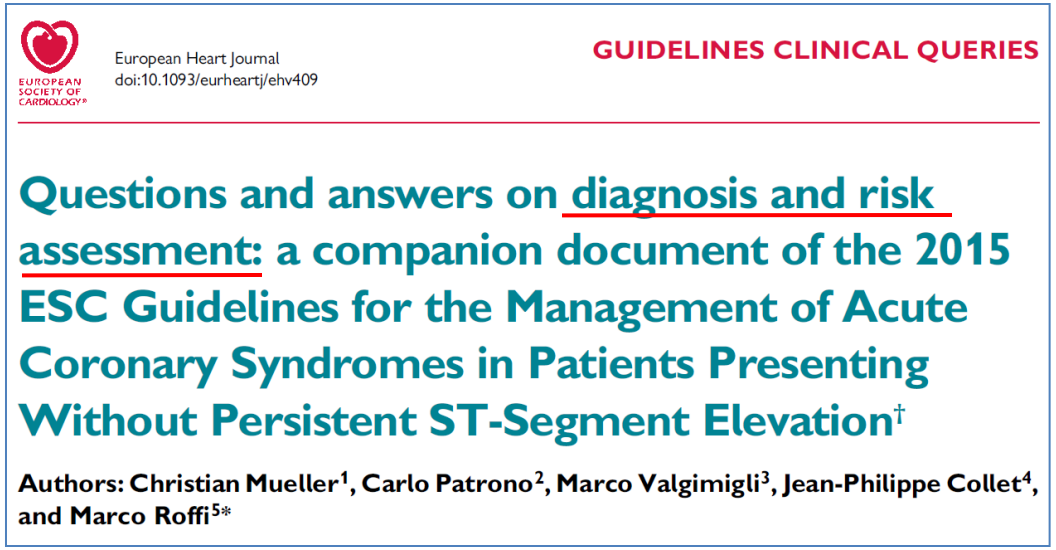
Antiplatelet Therapy after Stenting on OAC

Antiplatelet treatment		
Following coronary stenting, DAPT including new $P2Y_{12}$ inhibitors should be considered as alternative to triple therapy for patients with NSTE-ACS and atrial fibrillation with a CHA_2DS_2-VASc score = 1 (in males) or 2 (in females).	**IIa**	**C**
If at *low bleeding risk* (HAS-BLED ≤2), triple therapy with OAC, aspirin (75–100 mg/day) and clopidogrel 75 mg/day should be considered for 6 months irrespective of stent type followed by OAC and aspirin 75–100 mg/day or clopidogrel (75 mg/day) continued up to 12 months.	**IIa**	**C**
If at *high bleeding risk* (HAS-BLED ≥3), triple therapy with OAC, aspirin (75–100 mg/day) and clopidogrel 75 mg/day should be considered for a duration of 1 month followed by OAC and aspirin 75–100 mg/day or clopidogrel (75 mg/day) irrespective of the stent type (BMS or new-generation DES).	**IIa**	**C**
Dual therapy with OAC and clopidogrel 75 mg/day may be considered as an alternative to triple antithrombotic therapy in selected patients (HAS-BLED ≥3 and low risk of stent thrombosis).	**IIb**	**B**
The use of ticagrelor or prasugrel as part of triple therapy is not recommended.	**III**	**C**

- 40 cases each
- No reference
- Link to the dedicated sections of the GL

Help to implement GL in daily practice

European Heart Journal
doi:10.1093/eurheartj/ehv409



European Heart Journal
doi:10.1093/eurheartj/ehv409

GUIDELINES CLINICAL QUERIES

Questions and answers on diagnosis and risk assessment: a companion document of the 2015 ESC Guidelines for the Management of Acute Coronary Syndromes in Patients Presenting Without Persistent ST-Segment Elevation†

Authors: Christian Mueller[1], Carlo Patrono[2], Marco Valgimigli[3], Jean-Philippe Collet[4], and Marco Roffi[5]*

European Heart Journal
doi:10.1093/eurheartj/ehv407

Questions and answers on antithrombotic therapy: a companion document of the 2015 ESC Guidelines for the Management of Acute Coronary Syndromes in Patients Presenting Without Persistent ST-Segment Elevation†

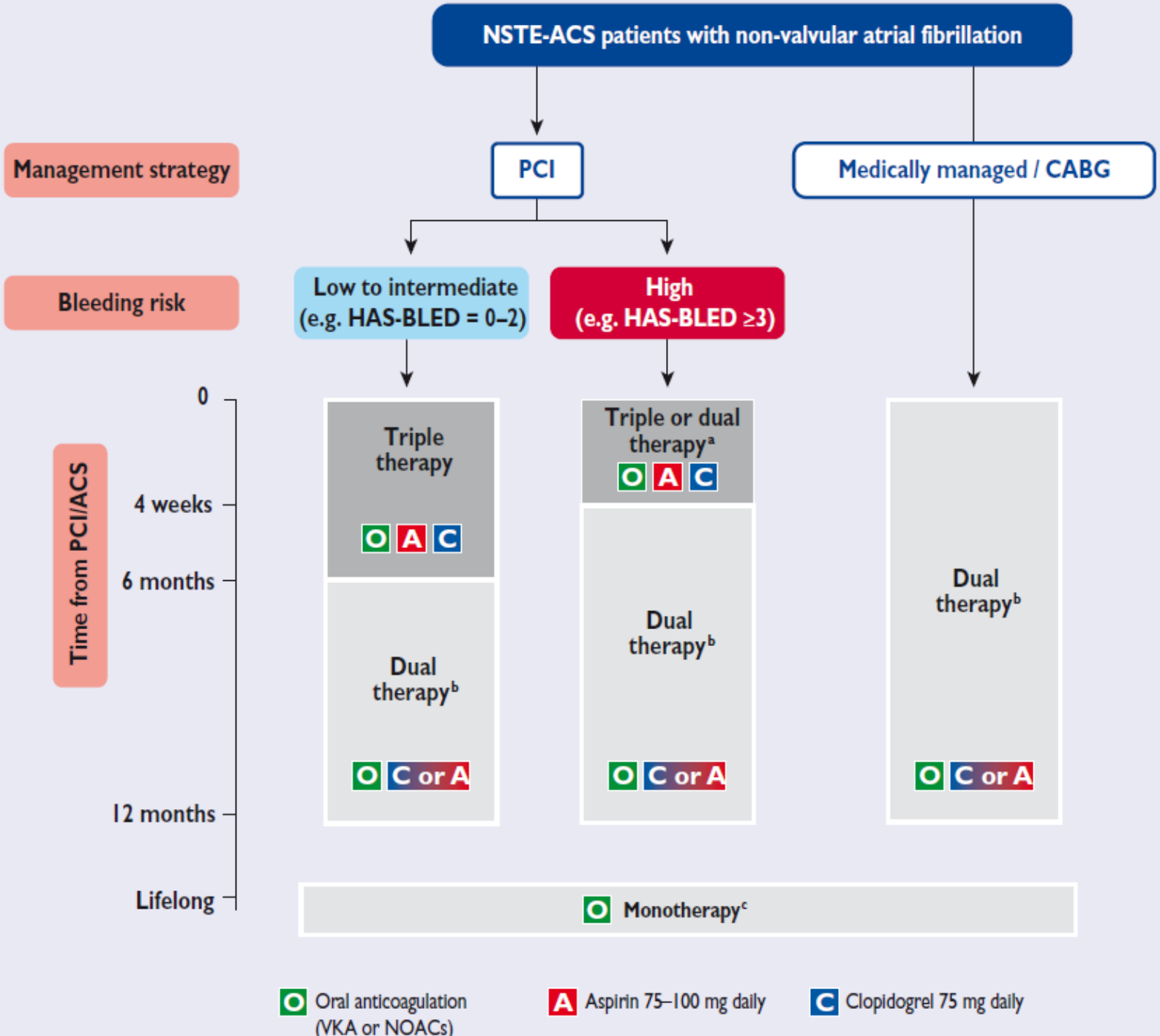
Authors: Jean-Philippe Collet[1], Marco Roffi[2]*, Christian Mueller[3], Marco Valgimigli[4], Carlo Patrono[5]

European Heart Journal
doi:10.1093/eurheartj/ehv408

Questions and answers on coronary revascularization: a companion document of the 2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation†

Authors: Marco Valgimigli[1], Carlo Patrono[2], Jean-Philippe Collet[3], Christian Mueller[4], Marco Roffi[5]*

Thank you


NSTE-ACS patients with non-valvular atrial fibrillation
Management strategy
PCI
Medically managed / CABG
Bleeding risk
Low to intermediate (e.g. HAS-BLED = 0–2)
High (e.g. HAS-BLED ≥3)
Time from PCI/ACS
0
4 weeks
6 months
12 months
Lifelong
Triple therapy
O A C
Dual therapy[b]
O C or A
Triple or dual therapy[a]
O A C
Dual therapy[b]
O C or A
Dual therapy[b]
O C or A
O Monotherapy[c]
O Oral anticoagulation (VKA or NOACs)
A Aspirin 75–100 mg daily
C Clopidogrel 75 mg daily

Main references

- **Roffi M, Patrono C, Collet JP, et al. Task Force for the Management of Acute Coronary Syndromes in Patients Presenting without Persistent ST-Segment Elevation of the European Society of Cardiology (ESC). 2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation: Eur Heart J. 2015 Aug 29.**

- Collet JP, Roffi M, Mueller C, Valgimigli M, Patrono C, Baumgartner H, Gaemperli O, Zamorano JL. Questions and answers on antithrombotic therapy: a companion document of the 2015 ESC Guidelines for the [2]management of acute coronary syndromes in patients presenting without persistent ST-segment elevation. Eur Heart J. 2015 Aug 29.

- Mueller C, Patrono C, Valgimigli M, Collet JP, Roffi M. Questions and answers on diagnosis and risk assessment: a companion document of the 2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation. Eur Heart J. 2015 Aug 29.

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