

Antithrombotic Treatment in PCI and Atrial Fibrillation The Triple Therapy Dilemma

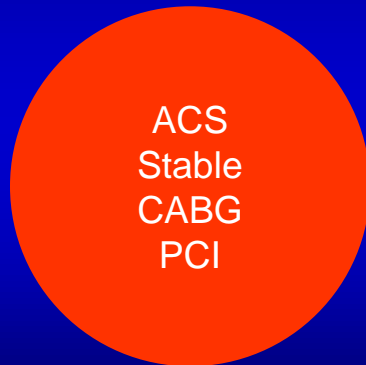


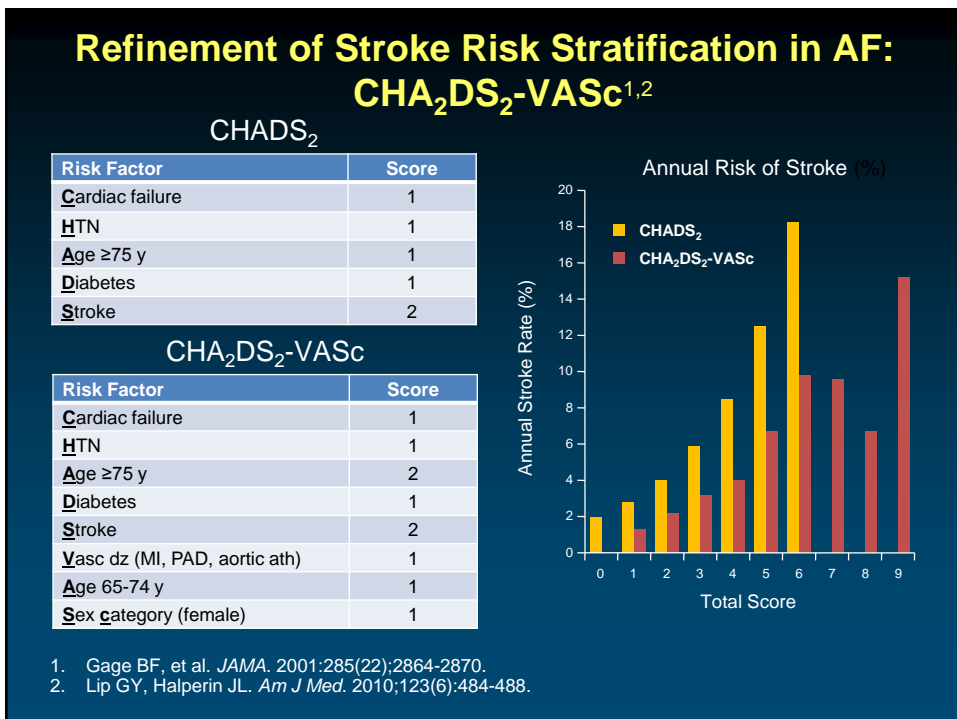
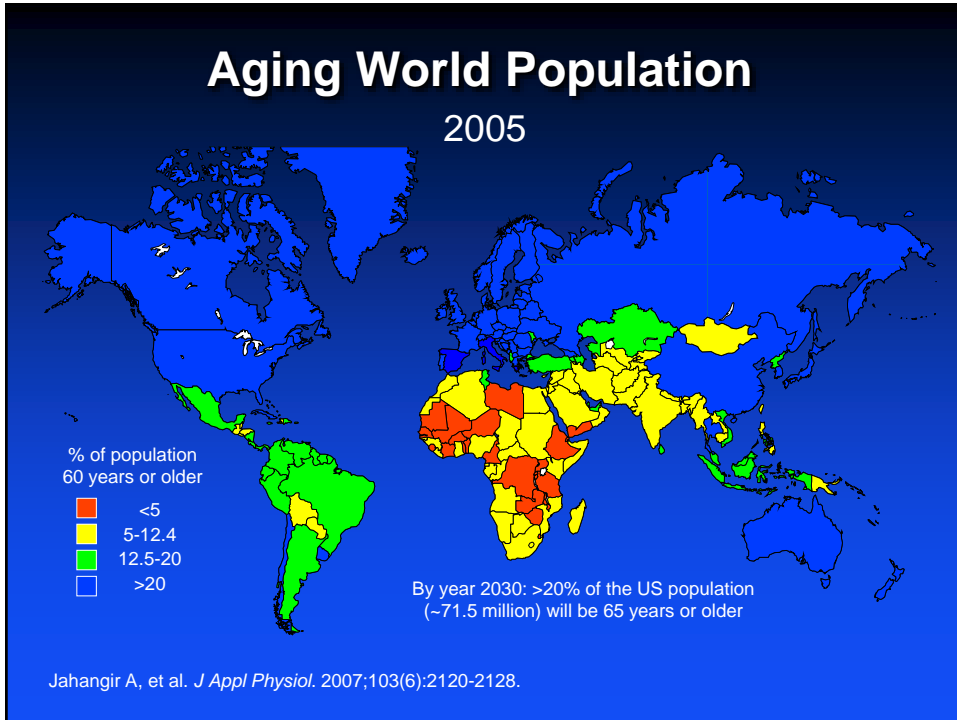
Luis A Guzman, MD, FACC, FSCAI
Professor of Medicine
Director, Cardiovascular Cath Lab
Virginia Commonwealth University



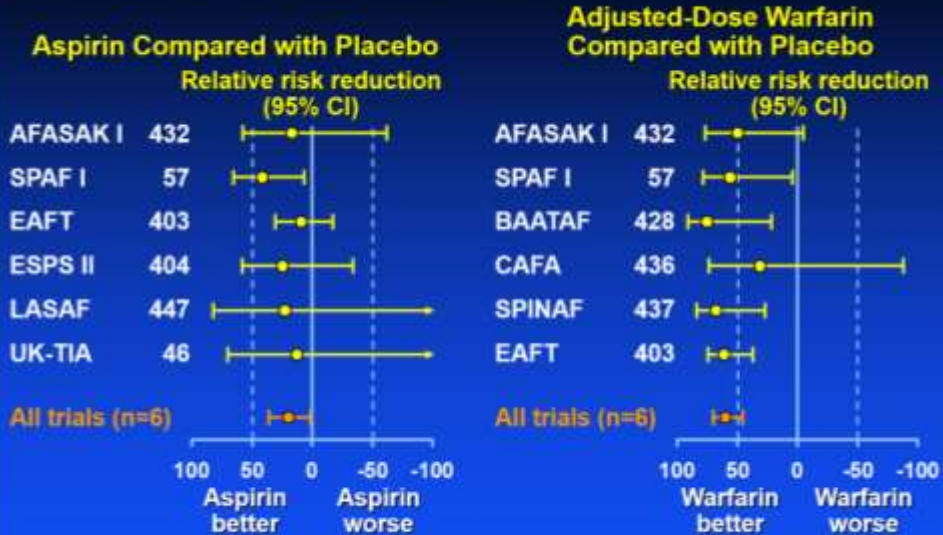
PCI and Atrial Fibrillation The Triple Therapy Dilemma

Dual Antiplatelets





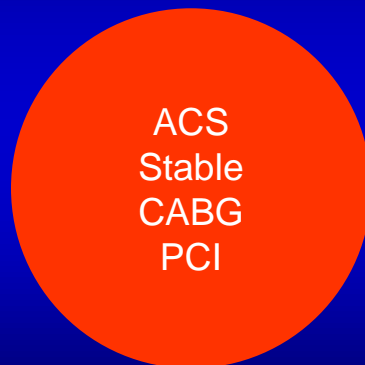
Stroke Prevention in Non-Rheumatic AF



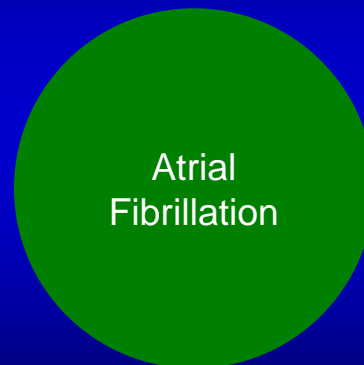
**ASPIRIN ALONE FOR STROKE PREVENTION IN AF:
NOT A SMART OPTION**

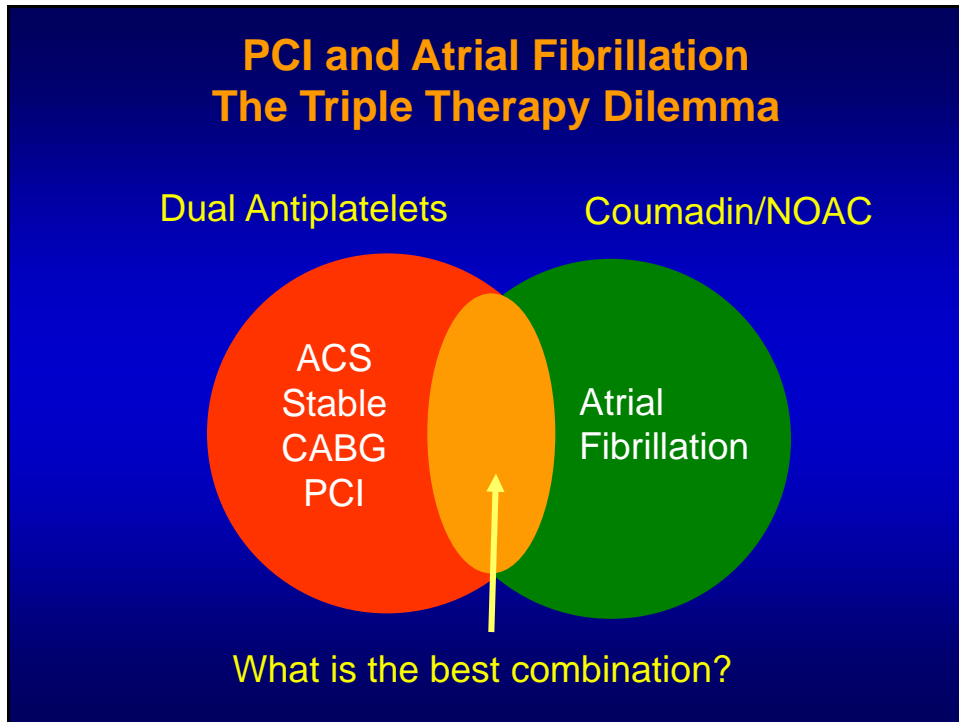
PCI and Atrial Fibrillation The Triple Therapy Dilemma

Dual Antiplatelets



Coumadin/NOAC





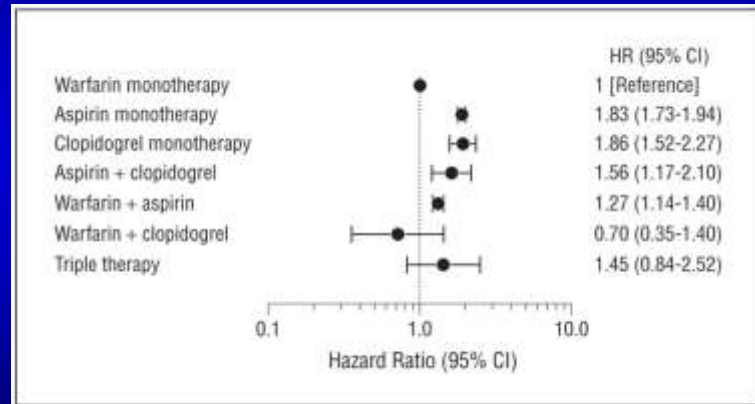
PCI and Atrial Fibrillation The Triple Therapy Dilemma

Questions

1. Do we need oral anticoagulation?

Risk of Stroke with Single, Dual, or Triple Therapy With Warfarin, Aspirin, and Clopidogrel in Patients With Atrial Fibrillation:

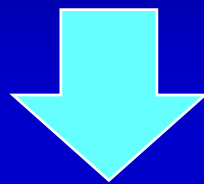
Risk of nonfatal (n = 9785) and fatal (n = 3537) ischemic stroke



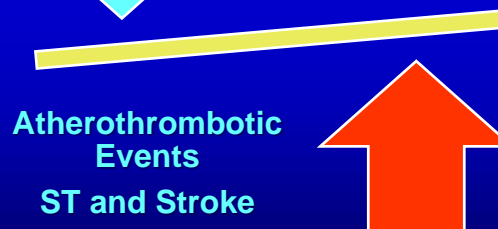
Hansen et al. Arch Intern Med. 2010;170(16):1433-1441.

PCI and Atrial Fibrillation The Triple Therapy Dilemma

Oral Anticoagulants



Bleeding Risk



Atherothrombotic
Events
ST and Stroke

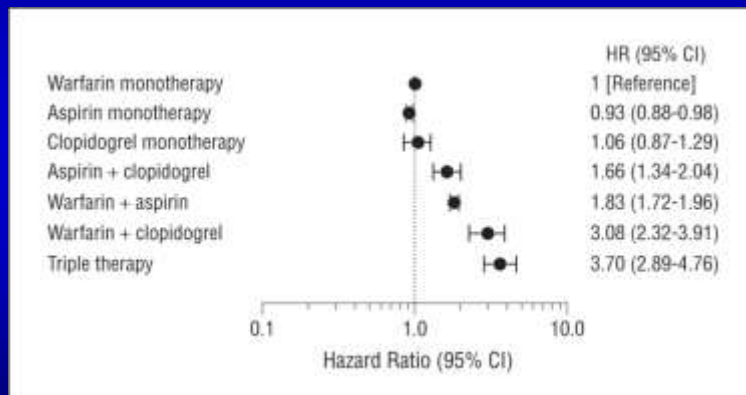
PCI and Atrial Fibrillation The Triple Therapy Dilemma

Questions

1. Do we need oral anticoagulation?
2. Do we need OAC + DAPT?

Risk of Bleeding with Single, Dual, or Triple Therapy With Warfarin, Aspirin, and Clopidogrel in Patients With Atrial Fibrillation:

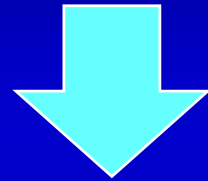
Risk of nonfatal (n = 12 191) and fatal (n = 1381) bleeding



Hansen et al. Arch Intern Med. 2010;170(16):1433-1441.

PCI and Atrial Fibrillation The Triple Therapy Dilemma

Oral Anticoagulants



Bleeding
Risk

Atherothrombotic
Events
ST and Stroke



Triple Therapy

PCI and Atrial Fibrillation The Triple Therapy Dilemma

How long Triple?

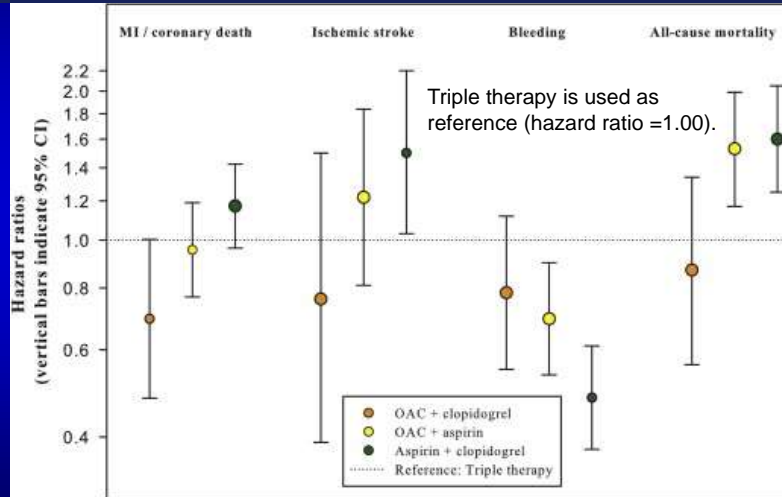
Double Therapy

- No Aspirin?
- No Clopidogrel?
- New P2Y12 agents?
- How long double? (3, 6, 12 months)

Role of New anticoagulants

Oral Anticoagulation and Antiplatelets in Atrial Fibrillation Patients After MI and PCI

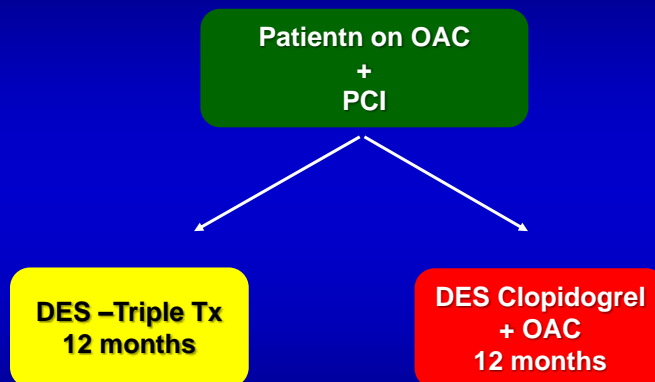
Denmark National Registry: 12,965 pts



Lambert M, et al JACC, Volume 62, Issue 11, 2013, 981 - 989

The WOEST Trial:

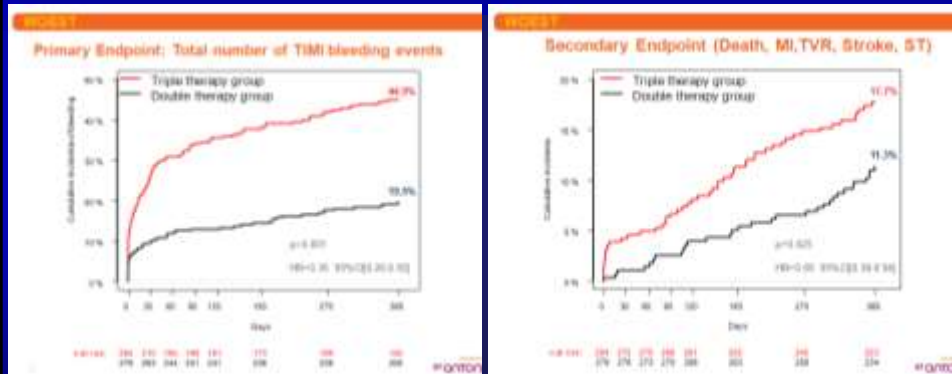
Randomised trial with or without aspirin in patients on oral anticoagulant therapy undergoing coronary stenting



Dewilde WJ et al. Lancet. 2013;381(9872):1107-15

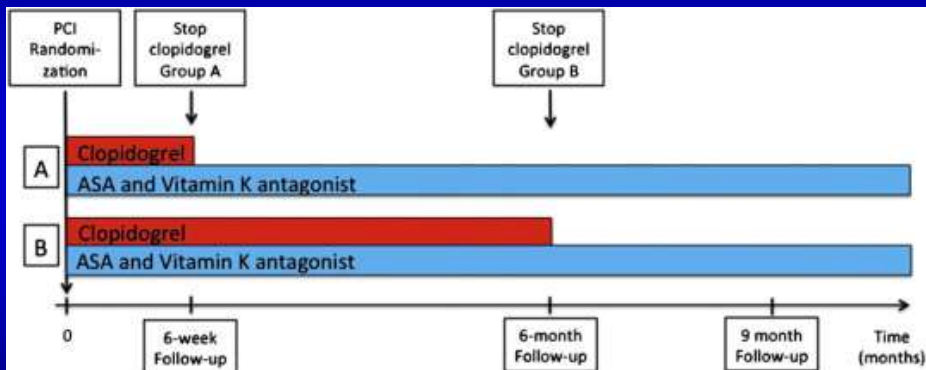
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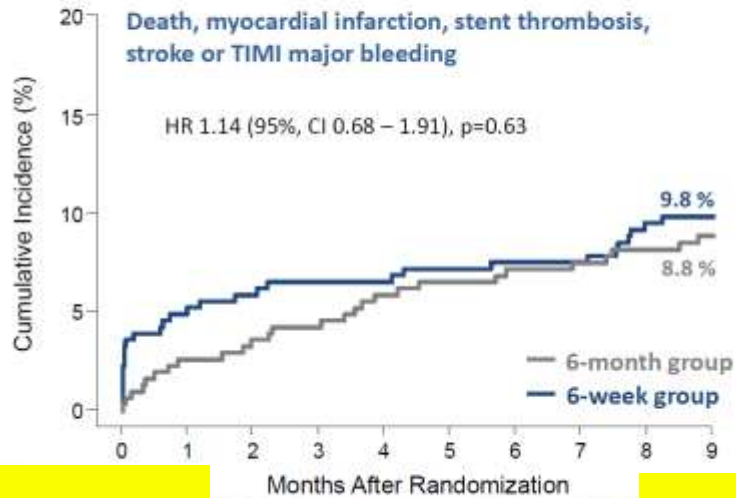
Dewilde WJ et al. *Lancet*. 2013;381(9872):1107-15

ISAR-TRIPLE Study Randomized 600 patients

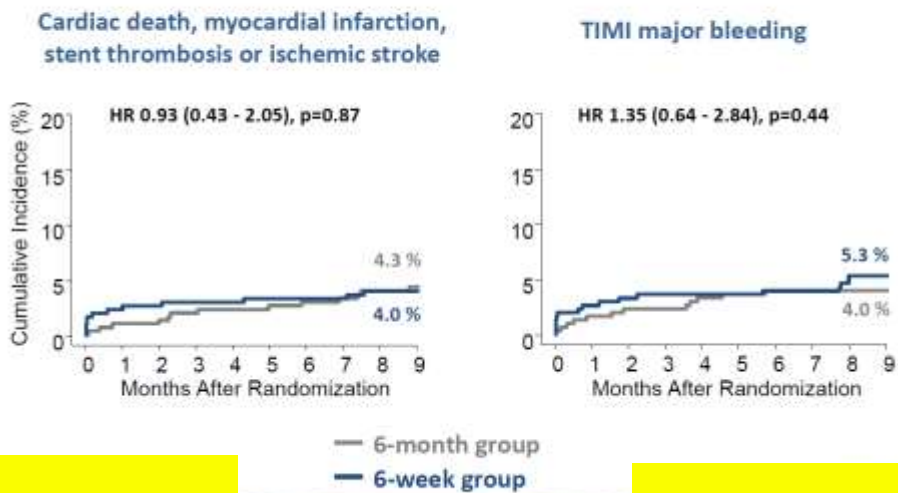


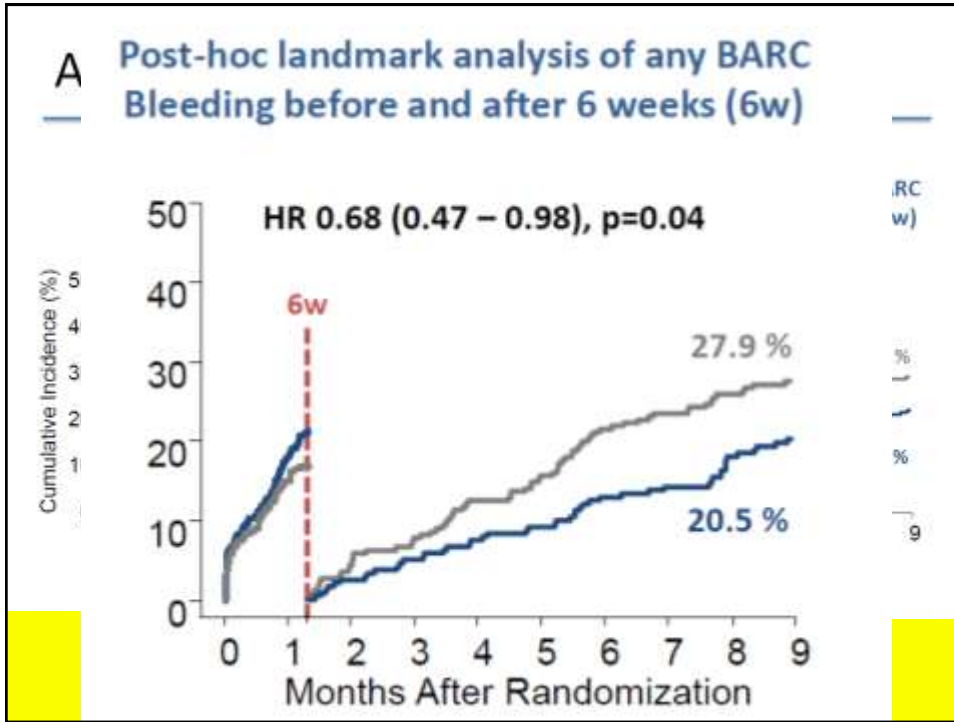
Fiedler KA, et al. Presented at TCT September 2014.

Primary Endpoint



Secondary Endpoints





PIONEER AF-PCI

XARELTO® (rivaroxaban) Use in Patients With AF Undergoing PCI: PIONEER AF-PCI

◆ 2100 patients with NVAF
 ◆ No prior stroke/TIA
 ◆ PCI with stent placement

≤72 hours After Sheath removal

R A N D O M I Z E

- XARELTO® 15 mg qd* Clopidogrel 75 mg qd†
- 1, 6, or 12 months
- XARELTO® 2.5 mg bid Clopidogrel 75 mg qd† Aspirin 75-100 mg qd‡
- XARELTO® 15mg QD Aspirin 75-100 mg qd
- 1, 6, or 12 months
- VKA (target INR 2.0-3.0) Clopidogrel 75 mg qd† Aspirin 75-100 mg qd
- VKA (target INR 2.0-3.0) Aspirin 75-100 mg qd

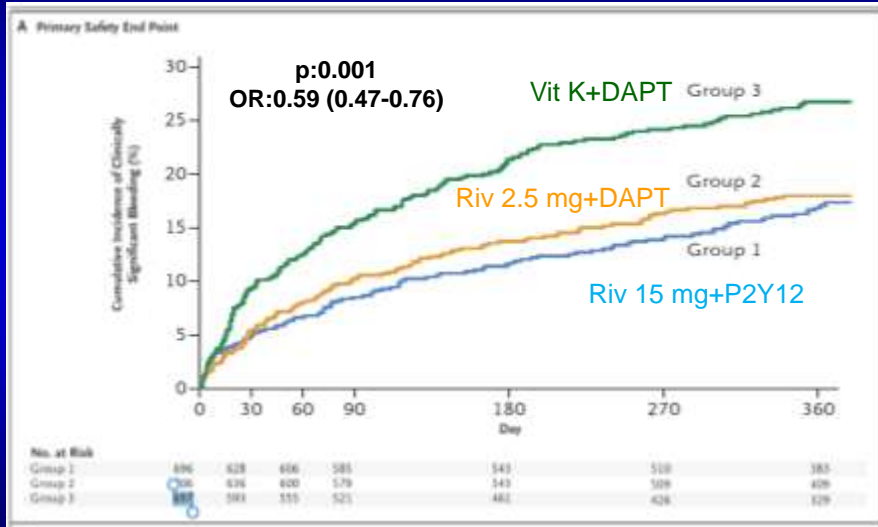
End of treatment at 12 months

- Primary endpoint: TIMI major, minor, and bleeding requiring medical attention
- Secondary endpoint: CV death, MI, stroke, and stent thrombosis

*XARELTO® dosed at 10 mg once daily in patients with CrCl of 30 to <50 mL/min.
 †Alternative P2Y₁₂ inhibitors: 10 mg once-daily prasugrel or 90 mg twice-daily ticagrelor.
 ‡Low-dose aspirin (75-100 mg/d).
 Data on File. Janssen Pharmaceuticals, Inc.



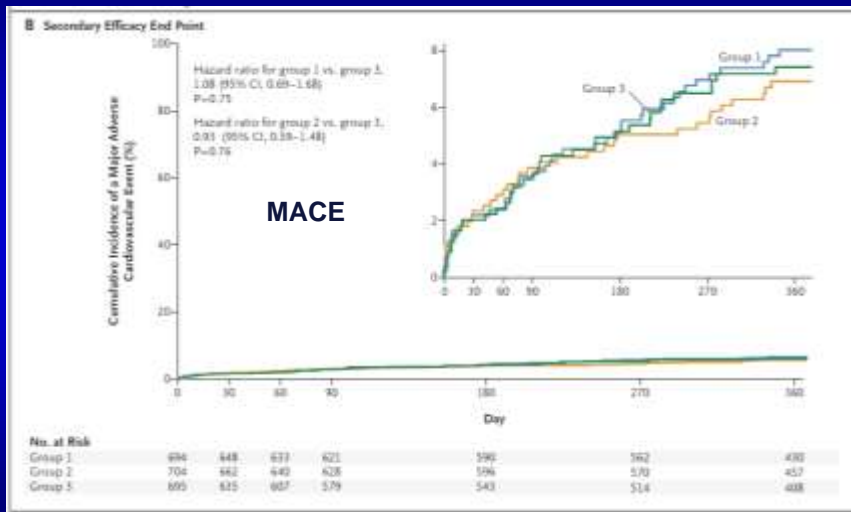
XARELTO® (rivaroxaban) Use in Patients With AF Undergoing PCI: PIONEER AF-PCI



Gibson M., et al. NEJM 2016; 375:2423-34



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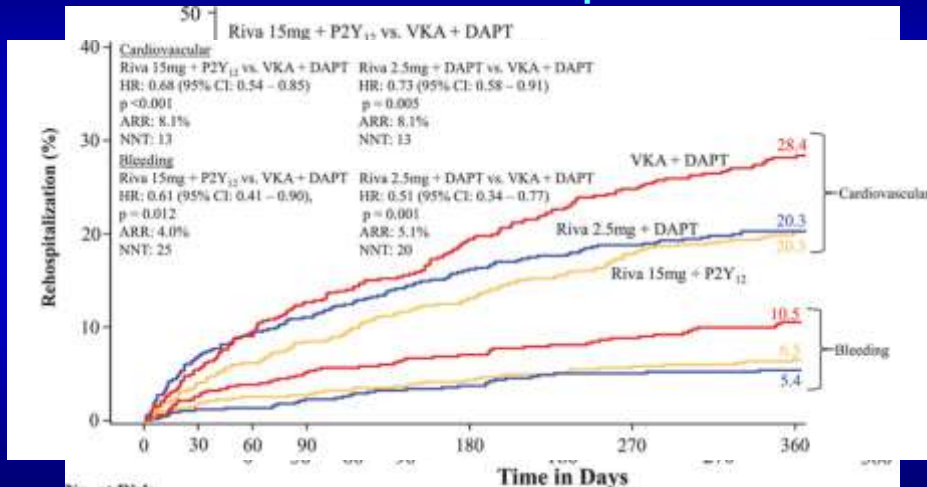


Gibson M., et al. NEJM 2016; 375:2423-34



XARELTO® (rivaroxaban) Use in Patients With AF Undergoing PCI: PIONEER AF-PCI

Time to first recurrent hospitalization.



C. Michael Gibson et al. Circulation. 2017;135:323-333

PCI and Atrial Fibrillation The Triple Therapy Dilemma

How long Triple?

Double Therapy

- No Aspirin?
- No Clopidogrel?

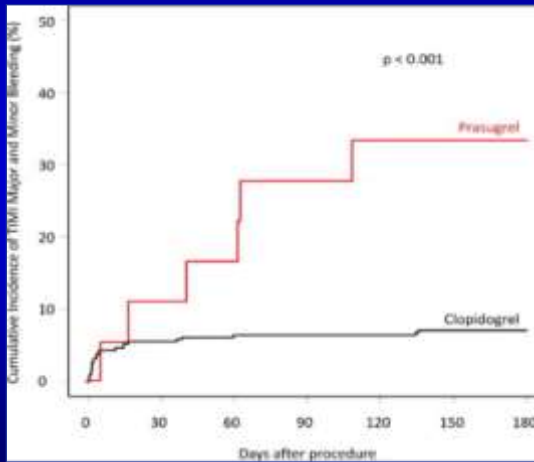
Role of New anticoagulants

New P2Y₁₂ agents?

How long double? (3, 6, 12 months)

Triple Therapy With Aspirin, Prasugrel, and VKA's

Kaplan-Meier analysis for the primary endpoint
(TIMI major and minor bleeding) at 6 months.



377 DES treated pts
of whom **21**
switched to
prasugrel because
of HPR

6 [28.6%] vs. 24 [6.7%];
unadjusted HR: 4.6, CI: 1.9-11.4,
p 0.001;
adjusted HR: 3.2, CI: 1.1 to 9.1, p
0.03

Sarafoff N et al. J Am Coll Cardiol. 2013;61:2060-2066.

PCI and Atrial Fibrillation The Triple Therapy Dilemma

How long Triple?

Double Therapy

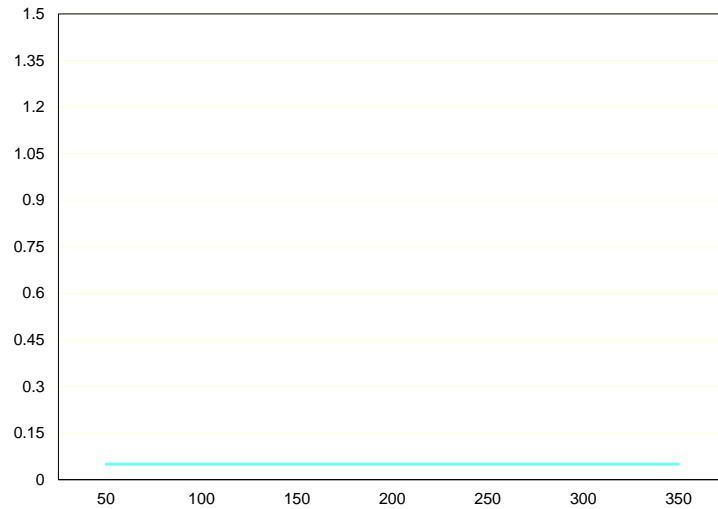
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Role of New anticoagulants

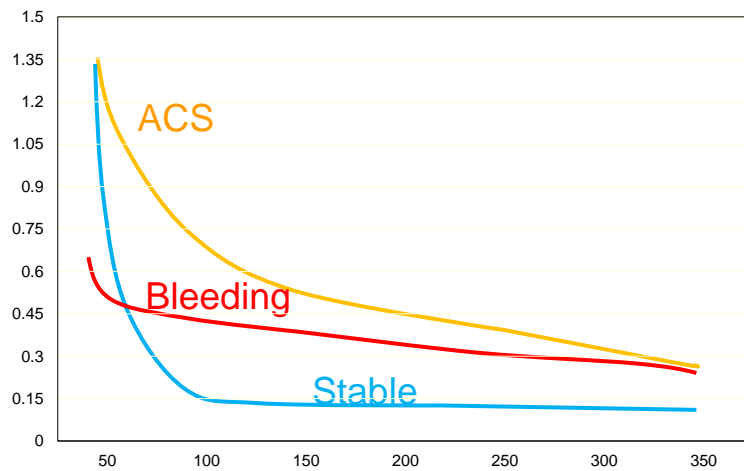
New P2Y12 agents?

How long double? (3, 6, 12 months)

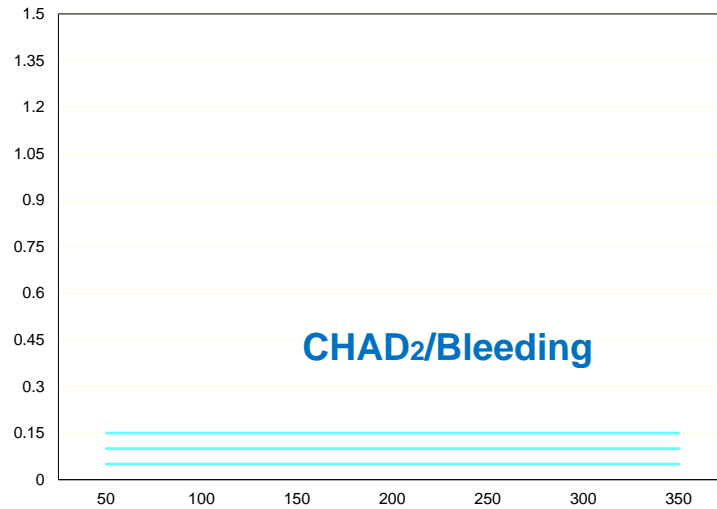
Conceptualizing Ischemic and Bleeding Risk



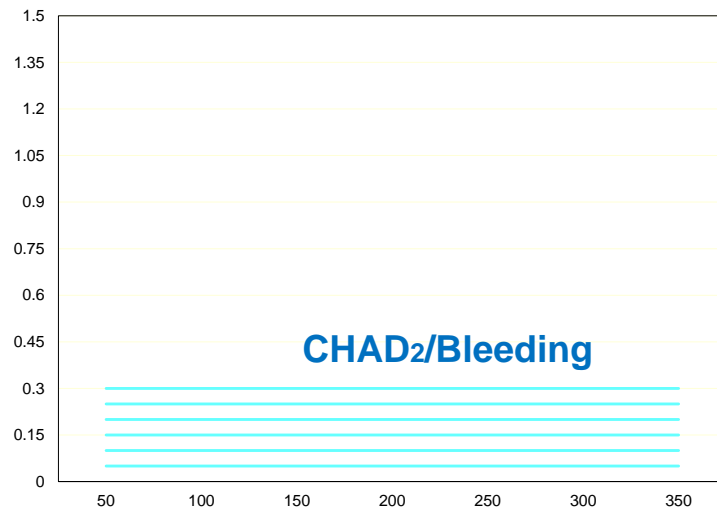
Conceptualizing Ischemic and Bleeding Risk



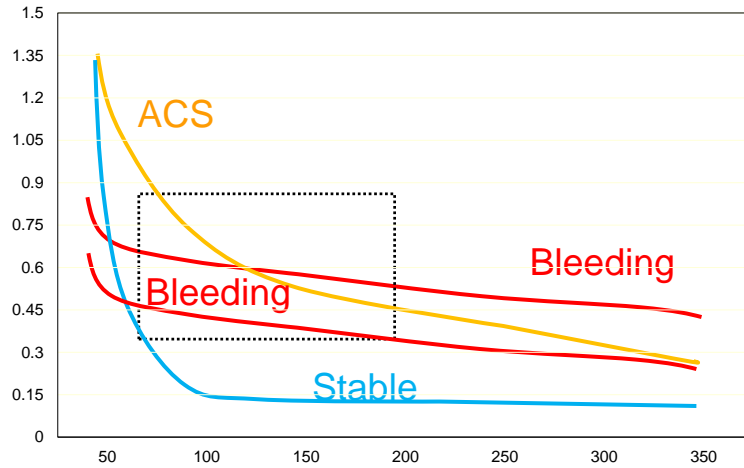
Conceptualizing Ischemic and Bleeding Risk



Conceptualizing Ischemic and Bleeding Risk



Conceptualizing Ischemic and Bleeding Risk



Use Clinical Judgement

Predictors of Ischemic

Age
Males
DM
Renal Failure
ACS
Anemia
Hemodynamic Compromise
CHF
Advanced CAD
PVD

Predictors of Bleeding

Age
Females
DM
Renal Failure
ACS
Anemia
History of bleeding
Intensity of Antithrombotic
Need for invasive procedues
Low BMI

Use Clinical Judgement

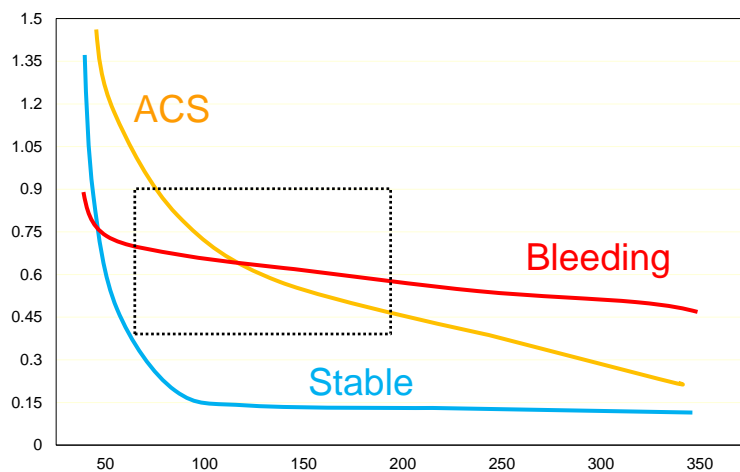
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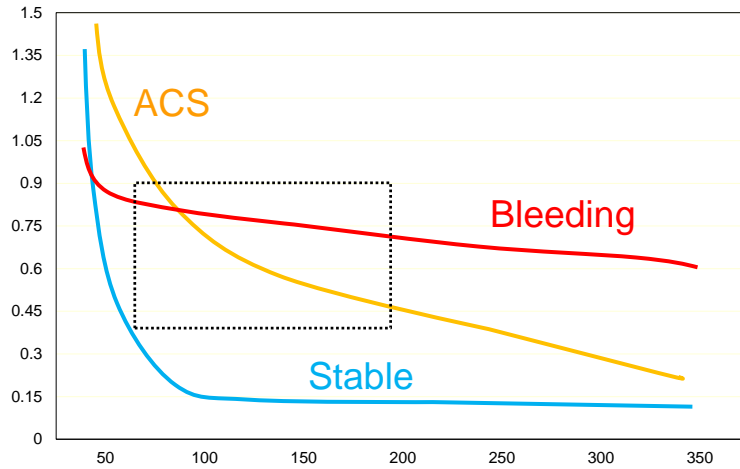
Predictors of Bleeding

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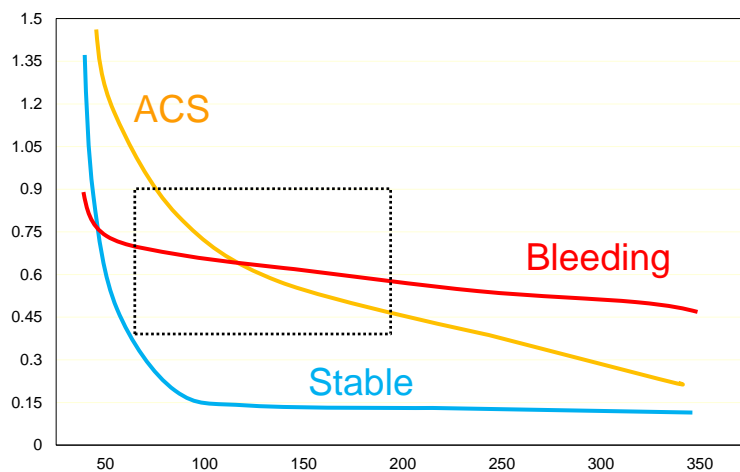
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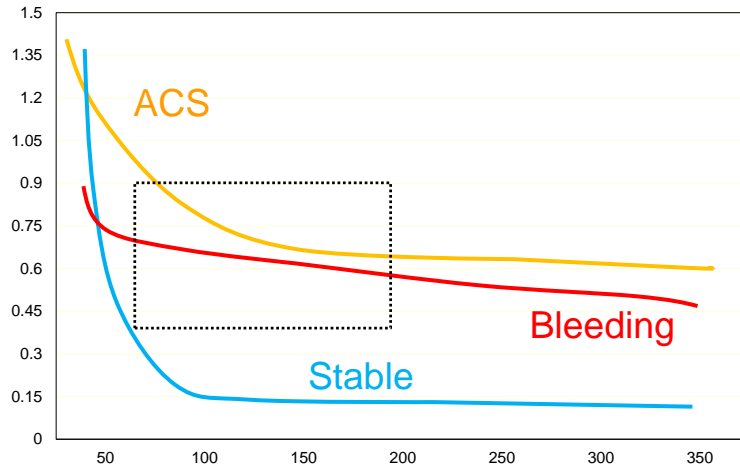
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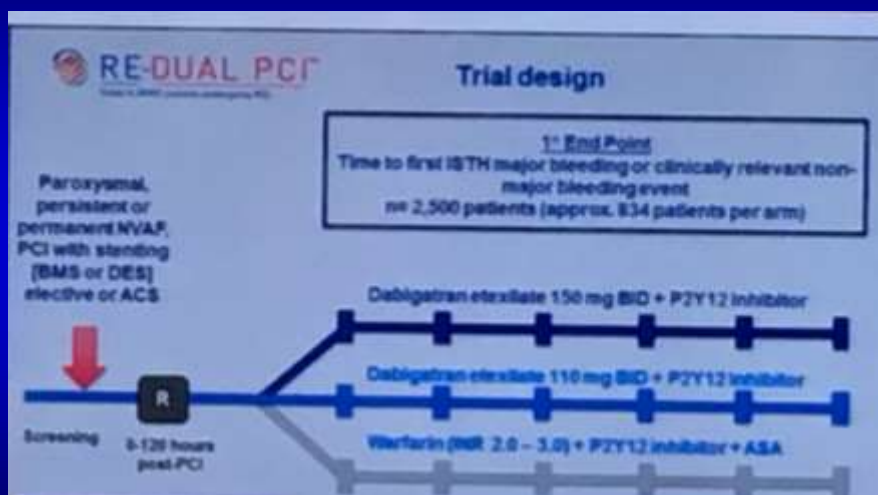
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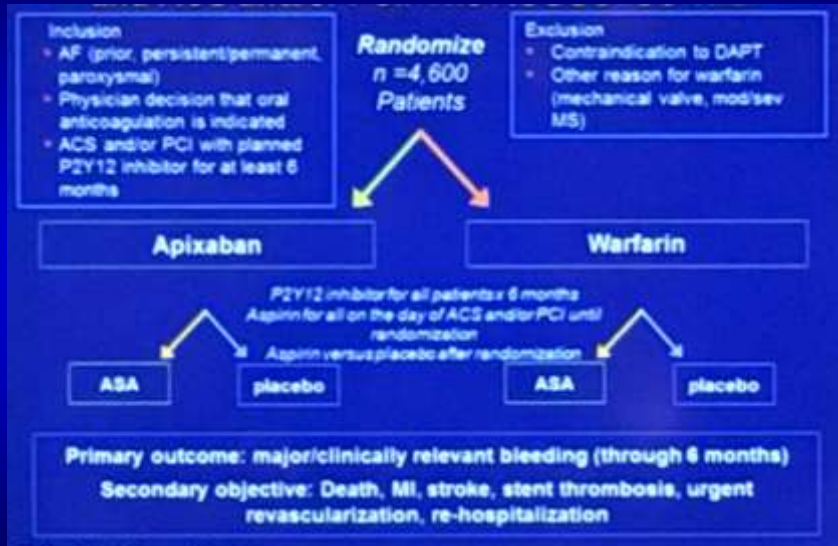
Conceptualizing Ischemic and Bleeding Risk



Dabigatran vs Warfarin in Patients with Atrial Fibrillation and PCI. The RE-DUAL Trial



Apixaban vs Warfarin in Patients with Atrial Fibrillation and PCI. The AUGUSTUS Trial



What do I do in my practice?

1) Which stent?

- Define if PCI/stenting is "appropriate"
- BMS for simple lesions (rare), otherwise a 2nd generation DES

2) Which P2Y12 agent?

- Clopidogrel. Avoid prasugrel/ticagrelor

3) Which OAC?

- If VKA (more data; antidote), targeting an INR 2.0-2.5
- If NOAC, lower dose might be safer (triple). Normal if double Tx

4) For how long Triple?

- Triple Rx for 0-1 month most pts. Consider 3-6 months (high risk)

5) Which antiplatelet should be dropped?

Stop aspirin. Continue OAC + Clopidogrel

6) For How long OAC + Single antiplatelet?

- According to patient bleeding and ischemic risk. 3 vs 6 vs 12 months

7) After 3-6-12 months

- Most, only OAC. Dual Rx with OAC ± aspirin (patient risk)

Thank You