ATRIAL FIBRILLATION: FACTORS INFLUENCING ORAL ANTICOAGULANT CHOICE AFTER STEMI

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Always the tension:

Bleeding risk

(associated with therapy)

Thrombotic risk

Stent thrombosis
AF –related
Cerebral embolism

The indication must be clear…

CHA2DS2-VASc Score	
Congestive HF	1
Hypertension	1
Age ≥75 years	2
Diabetes mellitus	1
Stroke/TIA/TE	2
Vascular disease (prior MI, PAD, or aortic plaque	1
Age 65 to 74 years	1
Sex category (ie, female sex)	1

Lip, GY, Am J Med 2011; 124:111

Stroke risk vs Bleeding risk

SCORE VS UNADJUSTED ISCHAEMIC STROKE RISK PER ANNUM	
0	0.2%
1	0.6%
2	2.2%
3	3.2%
4	4.8%
5	7.2%
6	9.7%
7	11.2%
8	10.8%
9	12.2%

HAS-BLED

Has bled 3 = 3.7%
Has bled 4 = 8.7%

What will you tell your 'triple therapy' patient about bleeding?

All bleeding: the rate of any bleeding ranges from 17-40% per year, various trials

Major bleeding (various definitions):

Ranges from 2-10% per year

Bleeding risk varies between 2-5 fold higher than for patients on DAPT

Even minor bleeds are important!

Bleeding events correlate with one year mortality after stenting

Bleeding episodes affect compliance

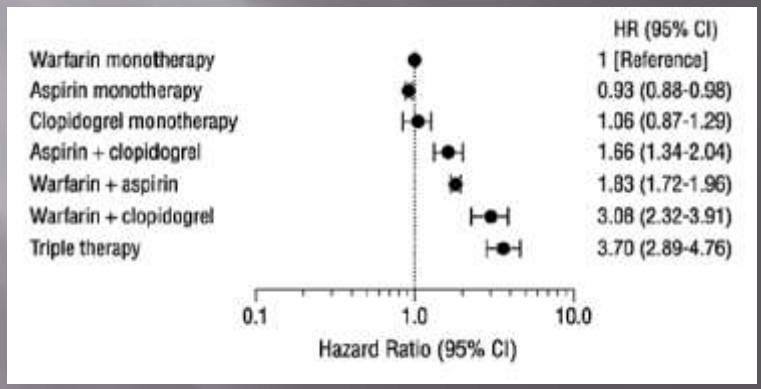
11.1% of patients with nuisance bleeding stop clopidogrel!

(Which in turn affects mortality)

Ndrepepa, Berger et al, J Am Coll Cardiol. 2008;51(7):690.

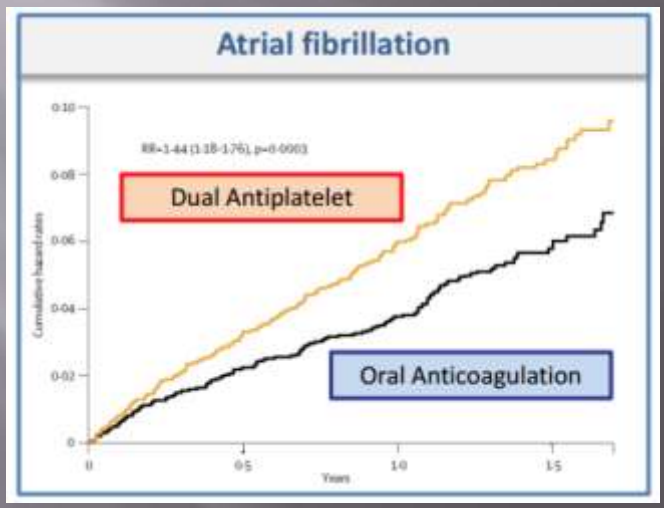
Roy, Bonnello et al, Am J Cardiol. 2008;102(12):1614

Bleeding associated with warfarin, aspirin, and clopidogrel combinations in patients with AF



Hansen et al. Arch Int Med, 2010:170,1433-1441

You cannot just withold the anticoagulant and use DAPT



Connolly S, Pogue J, Hart R, et al, (ACTIVE W): *Lancet* 2006; **367:** 1903–12.

Why warfarin?

Cost: SA Experience

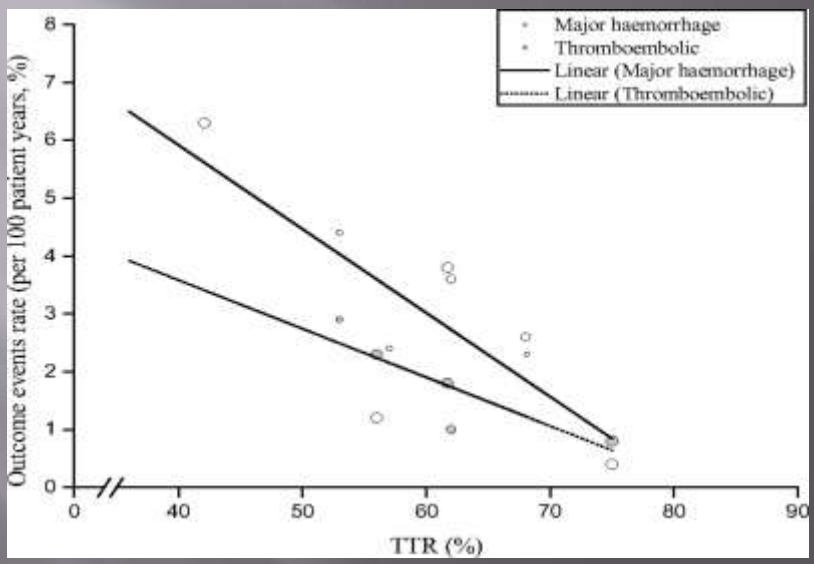
Widespread availability

Renal failure, GFR <30

Long track record of safety, efficacy, appropriate monitoring in a given patient?

Is there any other possible reason to prefer warfarin?

VKA: TTR



Wan, Heneghan et al. **(*Circ Cardiovasc Qual Outcomes*. 2008;1:84-91.)**

Factors that predict unstable INR

Not, as expected, diet, exercise, no of co-prescribed drugs, no. of co-morbid diseases

Being employed worse than pensioners
Younger age
Those requiring lower doses
Low patient knowledge: indications, risks etc

Palareti, Legnani et al. British Journal Haematology, 2005 :129(1);72–78

What does good warfarin management look like?

Occurs in an anticoagulation clinic
Systematic patient tracking in follow up
Reminders for missed tests
Computer aided warfarin dosing to be considered
Emphasis on education/information
Following standardised protocols
Not overreacting to small INR variations
Ongoing education..

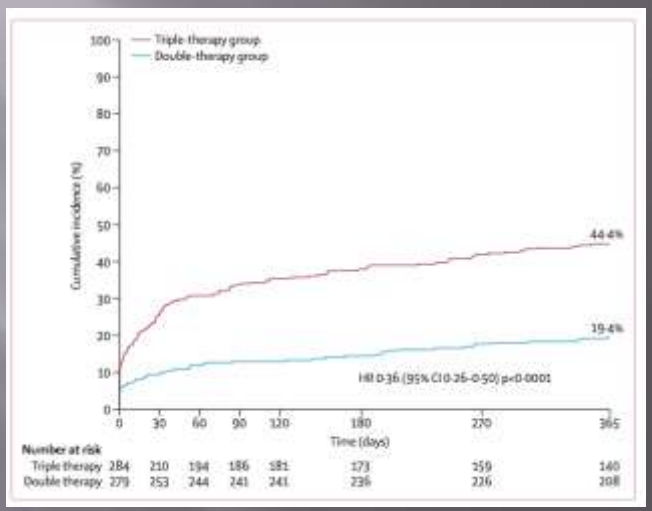
Wan, Heneghan et al,
Witt, Clark et al, J Thromb Thrombolysis. 2016; 41: 187–205

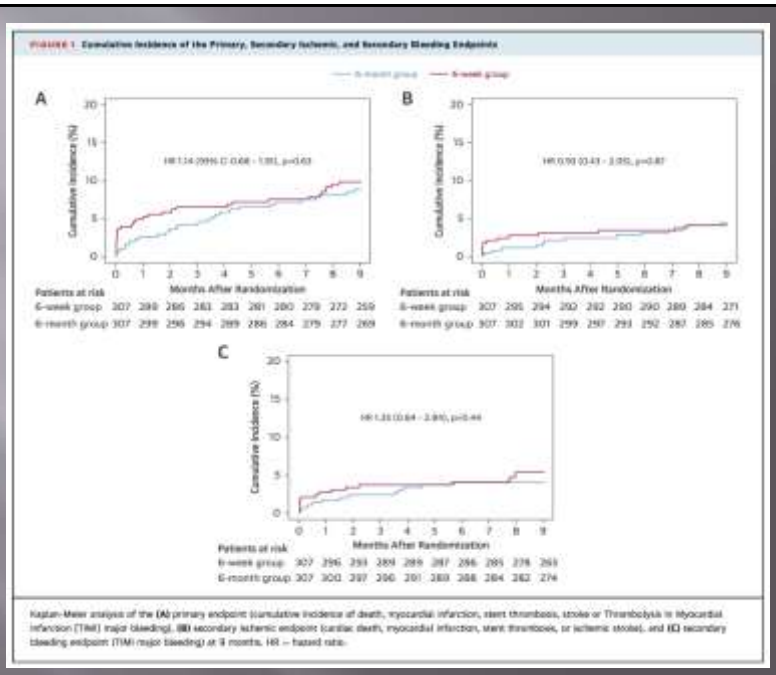
Data:

Woest:*Lancet* **2013; 381: 1107–15**

- Not STEMI
- All warfarin: no NOACS
- Small study: mortality benefit for clopidogrel only, vs clopidogrel and aspirin as APT

Primary endpoint: any bleeding

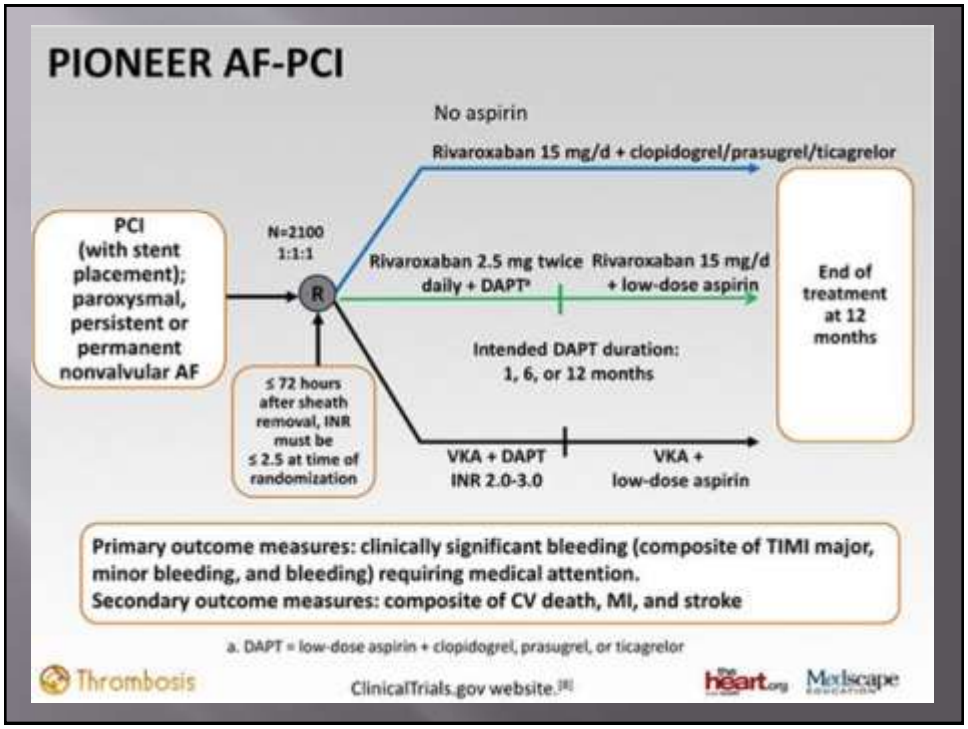




Fiedler, Maeng et al, J Am Coll Cardiol 2015;65:1619–29

Are NOACS's a better idea?

- APPRAISE-2
  - ACS high risk patients: triple therapy with full dose apixaban, clopidogrel, asa:
  - Terminated by safety board: excess bleeding



Are NOACS's a better idea?

Primary outcome: clinically significant bleeding occurred in

- 16.8% of group 1
- 18% of group 2
- 26.7% of group 3

Pioneer _AF

- Primary endpoint of TIMI major, minor, bleeding or bleeding requiring medical attention: significantly less in group 1 or 2
  (ie. NOAC regimens less bleeding)
- Secondary endpoint: CV death, MI, or stroke, similar in all 3 groups, so no apparent downside

Take home message:

1. When anticoagulation required, consider single antiplatelet drug
2. Consider NOAC (in preference to warfarin), in AF patients with clear anticoagulation need
3. Rivaroxaban (5mg bd with DAPT, and 15mg daily with single drug antiplatelet): weigh up your choice depending on bleeding vs thrombosis risk.

Take home message:

4. If warfarin is the only anticoagulant option (cost), then meticulous INR control needed
5. In patient with track record of bleeding on warfarin, and poor compliance, no oral agent may be better than warfarin, for DAPT Period
6. If patient is already on warfarin, with stable INR, can continue warfarin, with lower INR and more regular monitoring
7. Where cost is an issue, I would consider whether NOAC could be used during the period of triple therapy, if this is desired. Switch back to warfarin once APT drug reduced to single agent

Take home message:

Personalised consensus based on individual risks, individual preferences and drug availability, whilst further data accumulates

'Be a doctor': make a guideline for the patient in front of you

- Thank you.