

AF-Stroke Prevention

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Reason for thrombus



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Treatment Options

- Aspirin
- Coumadin
- Plavix
- Dabigatran
- Newer agents (not FDA approved)
- Non-pharmacologic options

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CHADS2 score, thromboembolic risk, and effect of warfarin in 11,526 patients with nonvalvular atrial fibrillation and no contraindications to warfarin therapy

Clinical parameter		Points	
Congestive heart failure (any history)		1	
Hypertension (prior history)		1	
Age ≥75 years		1	
Diabetes mellitus		1	
Secondary prevention in patients with a prior ischemic stroke or a transient ischemic attack; most experts also include patients with a systemic embolic event		2	
CHADS2 score	Events per 100 person-years*		NNT
	Warfarin	No warfarin	
0	0.25	0.49	417
1	0.72	1.52	125
2	1.27	2.50	81
3	2.20	5.27	33
4	2.35	6.02	27
5 or 6	4.60	6.88	44

NNT: number needed to treat to prevent one stroke per year with warfarin.
 * The CHADS2 score estimates the risk of stroke, which is defined as focal neurologic signs or symptoms that persist for more than 24 hours and that cannot be explained by hemorrhage, trauma, or other factors, or peripheral embolization, which is much less common. Transient ischemic attacks are not included. All differences between warfarin and no warfarin groups are statistically significant except for a trend with a CHADS2 score of 0. Patients are considered to be at low risk with a score of 0, at intermediate risk with a score of 1 or 2, and at high risk with a score ≥3. One exception is that most experts would consider patients with a prior ischemic stroke, transient ischemic attack, or systemic embolic event to be at high risk even if they had no other risk factors and therefore a score of 2. However, the great majority of these patients have some other risk factor and a score of at least 3.
 Data from Go, AS, Hylek, EM, Chang, Y, et al, JAMA 2003; 290:2685; and CHADS2 score from Gage, BF, Waterman, AD, Shannon, W, JAMA 2001; 285:2864.

Anti-platelet/Anticoagulation

- CHADS-2 scoring
 - CHF
 - Hypertension
 - Age >75
 - DM
 - Stroke or TIA - 2points
- Score =0, Asa, no Coumadin*; >1 Coumadin
- Score =1, Asa or Coumadin

*Except around CV or ablation

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2011 Guidelines Update

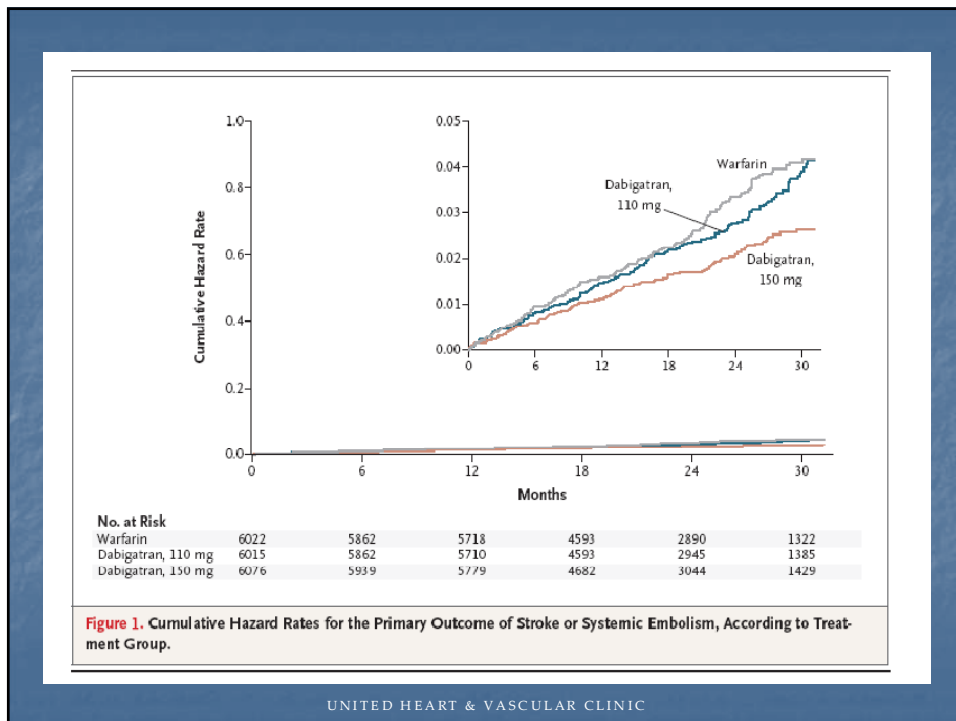
- Asa + Plavix secondary choice if unable to use coumadin

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Dabigatran

- Oral direct thrombin inhibitor
- RE-LY trial, not inferior to coumadin
- No INR or monitoring required
- Approved fall of 2010

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Dabigatran-advantages

- Ease of use
 - No INR's
 - No food interactions
- Rapid onset
- Fixed dose (reduced for GFR < 30)

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Dabigatran-disadvantages

- Cost (about \$7.00/day)
- BID dosing
- Not reversible in acute bleeding
- New, less experience around procedures
- Harder to confirm compliance

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Dabigatran

- Peri-procedure
- Difficult to regulate coumadin pt.
- Travelers
- Recent onset AF-start and schedule CV in 1 month or TEE and CV sooner.
- PAF not on chronic AC, start within 24 hours.

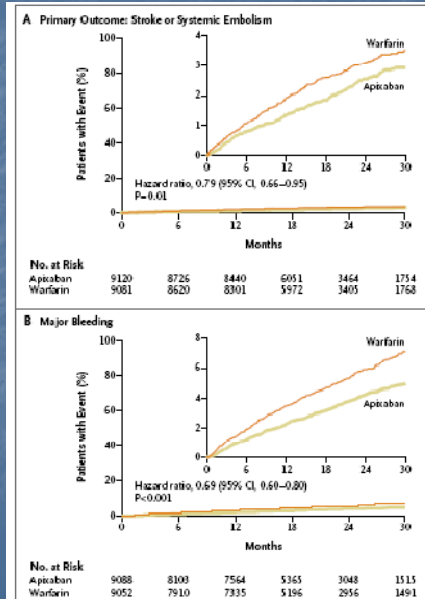
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Future Direct Xa inhibitors

- Rivaroxaban (ROCKET AF)
 - Non inferior
 - Once a day.
- Apixaban (ARISTOTLE)
 - Twice a day
 - "Better than coumadin"

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Apixaban

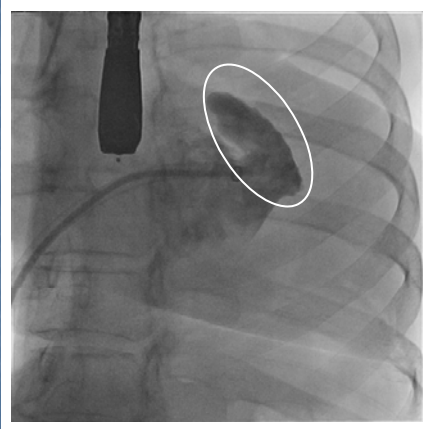


Non-pharmacologic options

- LAA occluder devices
- Surgical removal, clamping, or oversewing

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Watchman device



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