



When not to Anticoagulate?

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Disclaimer

Dr Griffith is a principal in General Practice in York

She is a GP specialist in Cardiology at York Teaching Hospital Foundation Trust where she has worked in the Rapid Access Chest Pain Clinic for 9 years

She is a Cardiovascular and Renal Lead for NY&Y PCT and WYCN

She is a Clinical Tutor on the Bradford University Course for PwSI in Cardiology

She is President of the Primary Care Cardiovascular Society and a lead of the GPwSI in Cardiology Forum

She has given medical lectures, attended clinical meetings, and advisory boards with Astra Zeneca, Boehringer Ingleheim, Menarini, MSD, Pfizer, Sanofi-Aventis, Shering Plough and Takeda

She is a member of the Renal Advisory Group at the Department of Health and the CKD Forum of the British Renal Society

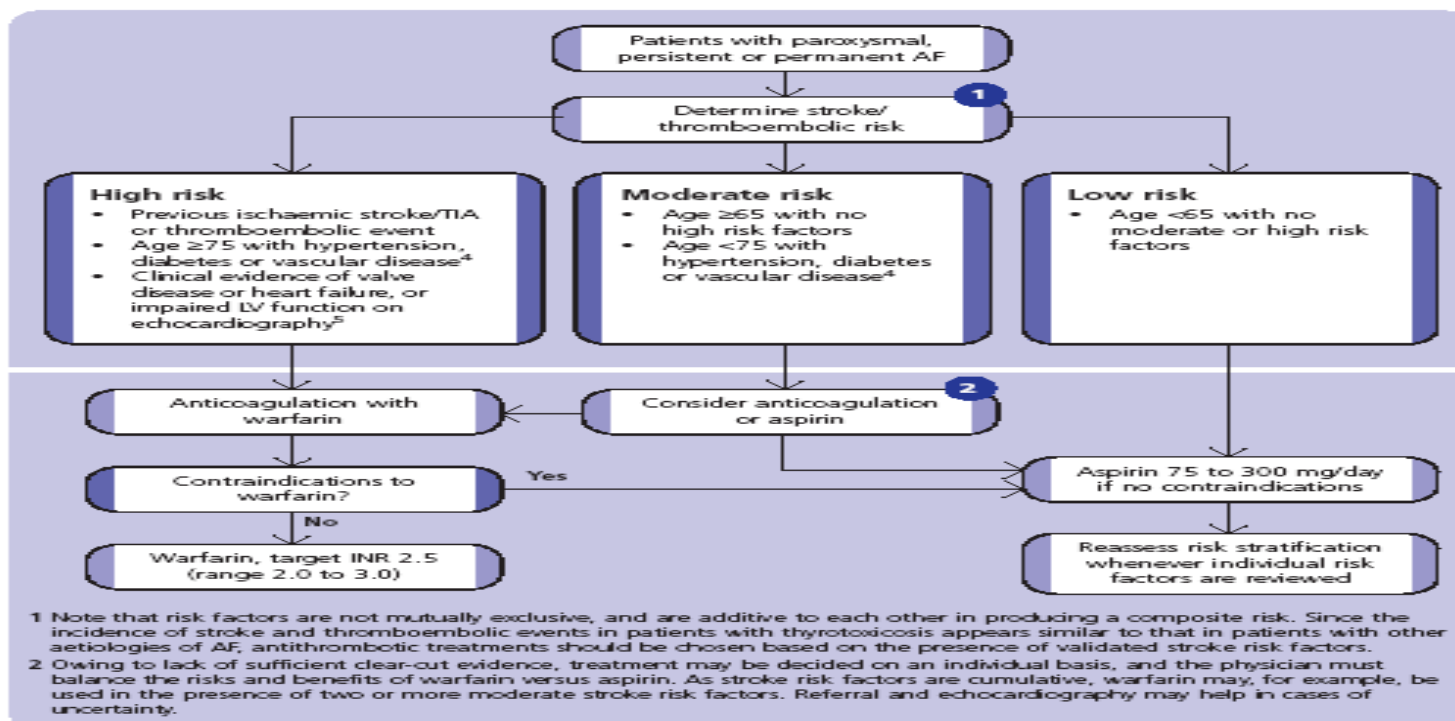


When **TO** Anticoagulate?

- Step 1 Risk Score

Stroke risk stratification and thromboprophylaxis

Stroke risk stratification



⁴Coronary artery disease or peripheral artery disease.

⁵An echocardiogram is not needed for routine assessment, but refines clinical risk stratification in the case of moderate or severe LV dysfunction and valve disease.

Assessing Stroke Risk CHADS2

	Risk Factor	Yes	No
C	Congestive Heart Failure	1 point	0
H	Hypertension (160/90)	1 point	0
A	Age >75	1 point	0
D	Diabetes	1 point	0
S	Stroke or TIA	2 points	0
	Risk Score		
	Annual Stroke Risk		
	Consider Warfarin	>=2	



When **NOT** to Anticoagulate?

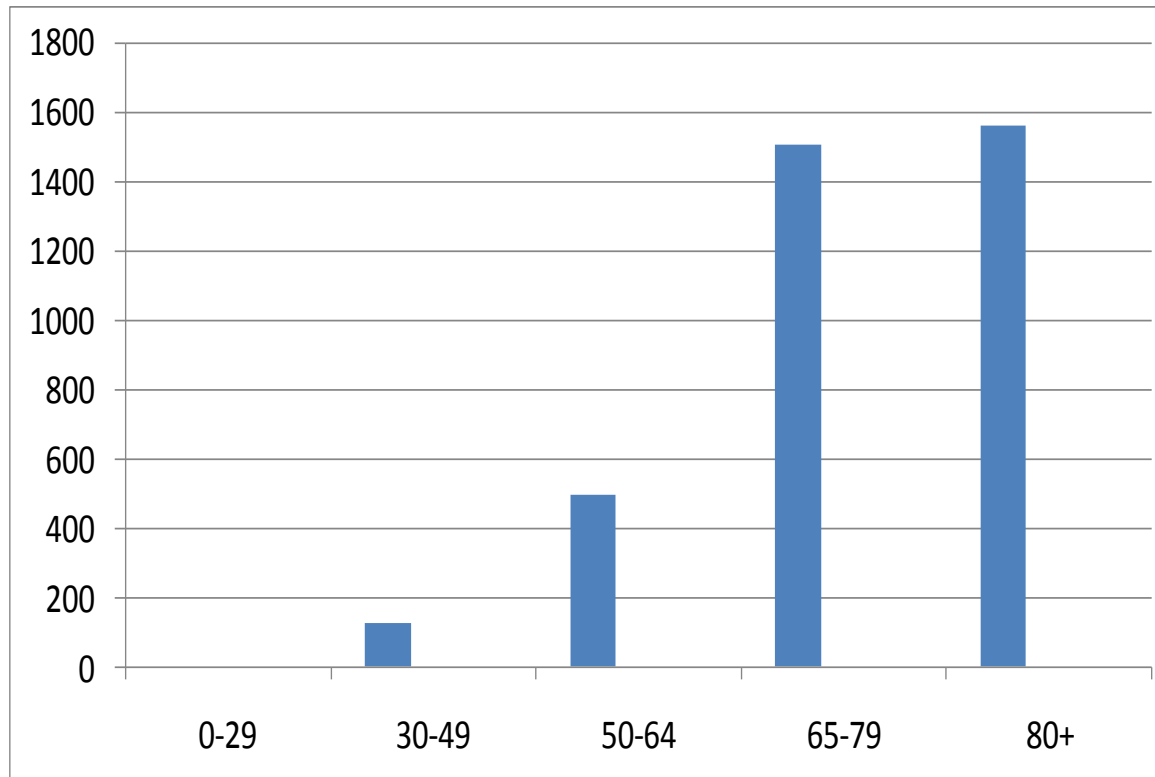
- Stroke Risk Score
- Age <65
- No previous stroke, TIA or embolic event
- No diabetes, hypertension or vascular disease
- No valvular heart disease or heart failure
- **Do these AF patients exist?**

Low risk AF

- Young person
- Paroxysmal AF
- Normal heart
- Arrhythmogenic substrate
- How many patients like this do we have?

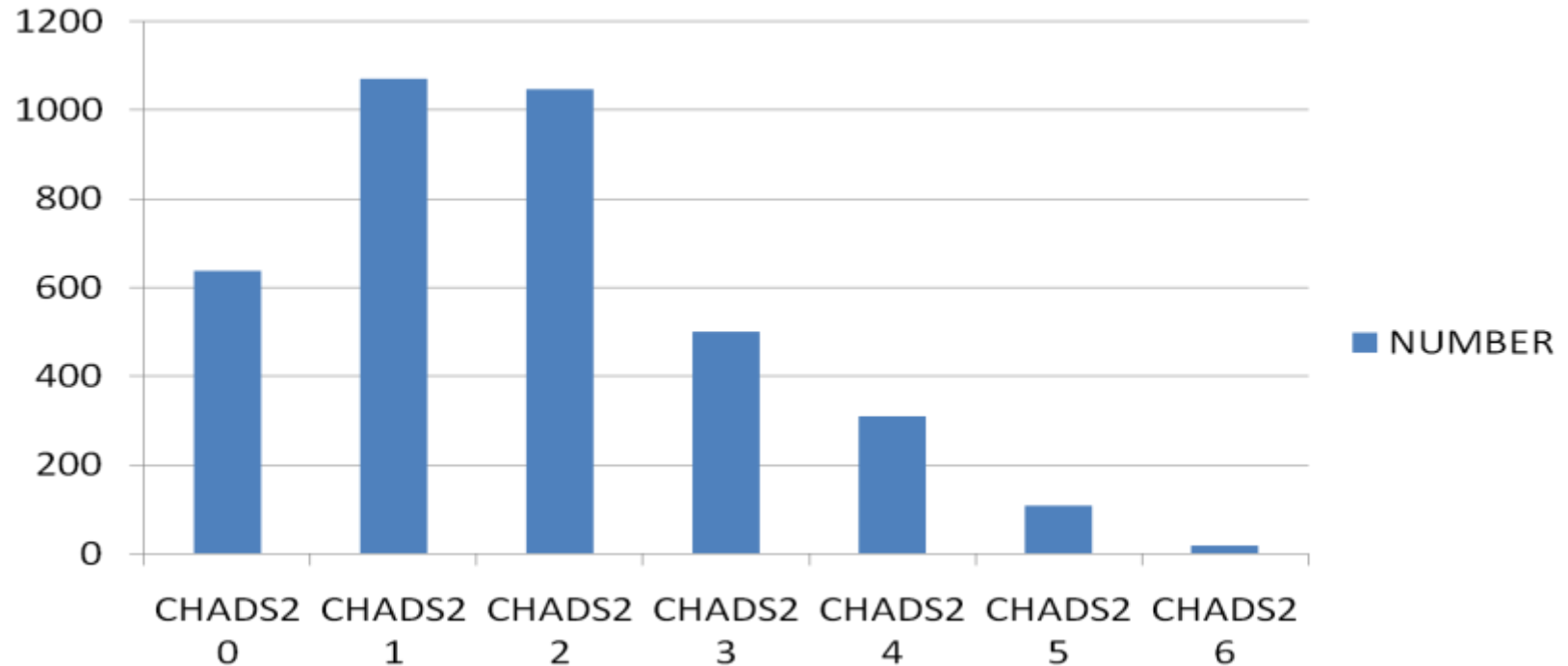


Number of AF patients York project Total 3700 only 17% under 65



CHADS2 SCORE in 3699 AF patients in York Health Group study

10% Score 0 and 29% score 1



Assessing Stroke Risk CHA₂DS₂VASc

	Risk Factor	Yes
C	Congestive Heart Failure	1 point
H	Hypertension (160/90)	1 point
A₂	Age >75	2 point
D	Diabetes	1 point
S₂	Stroke or TIA	2 point
V	Vascular Disease, PAD, aortic plaque	1 point
A	Age 65-74	1 point
Sc	Sex category female	1 point
	Score 2 or more high risk	

High risk AF????

- Under 65 but female
- Paroxysmal AF
- BP 160/90
- Normal heart
- Arrhythmogenic substrate
- CHADSVASc score 2
- Should she take warfarin?





When **NOT** to Anticoagulate?

- Step 1
- Stroke Risk Score CHADSVASC 0 or 1
- Step 2**
- Are there any Contraindications to Anticoagulation?**

Contraindications to **WARFARIN** treatment

- Pregnancy
- Coagulation factor abnormalities
- Thrombocytopenia (<100 000/ μ L)
- Haemorrhagic stroke
- Excessive alcohol intake
- Dementia
- Recent or contemplated surgery of the CNS or the eye
- Frequent falls or seizures
- Poor drug or clinic compliance
- Poorly controlled hypertension (>180/110 mmHg)
- Severe hepatic or renal disease
- Threatened abortion (eclampsia, pre-eclampsia)
- Non-steroidal agents
- Gastrointestinal or urinary bleeding in the previous 6 months

Contraindications to **Antithrombotic** treatment

- Pregnancy
- Coagulation factor abnormalities
- Thrombocytopenia (<100 000/ μ L)
- Haemorrhagic stroke
- Excessive alcohol intake
- Dementia
- Recent or contemplated surgery of the CNS or the eye
- Frequent falls or seizures
- Poor drug or clinic compliance
- Poorly controlled hypertension (>180/110 mmHg)
- Severe hepatic or renal disease
- Threatened abortion (eclampsia, pre-eclampsia)
- Non-steroidal agents
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Contraindications to **Antithrombotic** treatment

- Pregnancy
- **Coagulation factor abnormalities**
- **Thrombocytopenia (<100 000/ μ L)**
- **Haemorrhagic stroke**
- Excessive alcohol intake
- Dementia
- **Recent or contemplated surgery of the CNS or the eye**
- Frequent falls or seizures
- Poor drug or clinic compliance
- Poorly controlled hypertension (>180/110 mmHg)
- Severe hepatic or renal disease
- Threatened abortion (eclampsia, pre-eclampsia)
- Non-steroidal agents
- **Gastrointestinal or urinary bleeding in the previous 6 months**

Why were high risk patients not changed to warfarin in 767 reviews ?

- Absolute Contraindications 174 = 23%
- Relative Contraindications 196 = 26%
- Patient Declined 93 = 12%
- Doctor related 261 = 34%
- Not recorded 43 = 5%
- York Health group project using GRASP tool

Absolute Contraindications = 174

• Patient died	13
• Terminal Illness	13
• Reaction to Warfarin	1
• Renal/ Hepatic	25
• Anaemia	26
• BP >180	8
• Alcohol intake	4
• Bleeding :-	86
• Recent Peptic Ulcer	11
• GI Haemorrhage	38
• Varices	0
• Major Haemorrhage	14
• Intracranial Haemorrhage	14
• Recent surgery	7

Table 10 Clinical characteristics comprising the HAS-BLED bleeding risk score

Letter	Clinical characteristic ^a	Points awarded
H	Hypertension	1
A	Abnormal renal and liver function (1 point each)	1 or 2
S	Stroke	1
B	Bleeding	1
L	Labile INRs	1
E	Elderly (e.g. age >65 years)	1
D	Drugs or alcohol (1 point each)	1 or 2
		Maximum 9 points

^a'Hypertension' is defined as systolic blood pressure > 160 mmHg. 'Abnormal kidney function' is defined as the presence of chronic dialysis or renal transplantation or serum creatinine $\geq 200 \mu\text{mol/L}$. 'Abnormal liver function' is defined as chronic hepatic disease (e.g. cirrhosis) or biochemical evidence of significant hepatic derangement (e.g. bilirubin $> 2 \times$ upper limit of normal, in association with aspartate aminotransferase/alanine aminotransferase/alkaline phosphatase $> 3 \times$ upper limit normal, etc.). 'Bleeding' refers to previous bleeding history and/or predisposition to bleeding, e.g. bleeding diathesis, anaemia, etc. 'Labile INRs' refers to unstable/high INRs or poor time in therapeutic range (e.g. $< 60\%$). Drugs/alcohol use refers to concomitant use of drugs, such as antiplatelet agents, non-steroidal anti-inflammatory drugs, or alcohol abuse, etc. INR = international normalized ratio. Adapted from Pisters et al.⁶⁰

Relative contraindications

- Risk of falls 77
- Aspirin and Clopidogrel 6
- Psychiatric reasons 110
- Infection 3

Why were high risk patients not changed to warfarin in 767 reviews ?

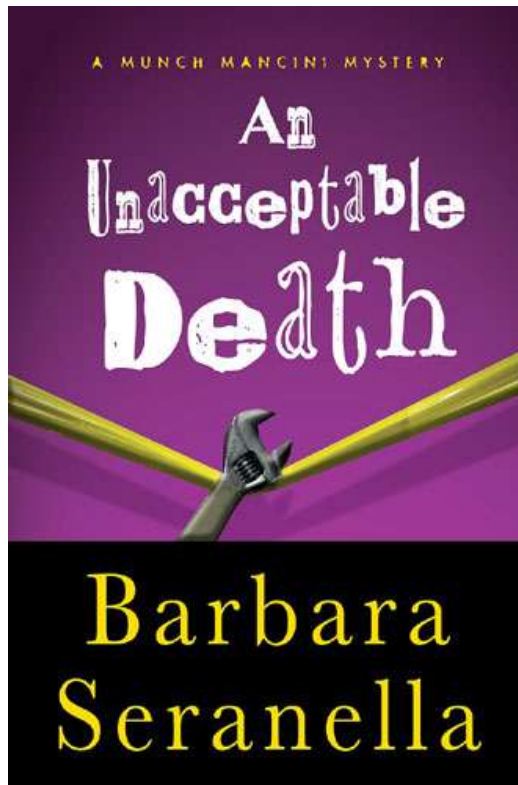
- Absolute Contraindications 174 = 23%
- Relative Contraindications 196 = 26%
- Patient Declined 93 = 12%
- Doctor related 261 = 34%
- Not recorded 43 = 5%
- **Number not absolute reason 583 = 77%**



When **NOT** to Anticoagulate?

- Step 1
- Stroke Risk Score CHADSVASC 0 or 1
- Step 2
- Are there any Contraindications to Anticoagulation?
- Step 3 :- Patient Choice**
- Does the patient understand the risks of AF and the benefits and risk of anticoagulation?**

Patient Choice



Patient Choice Safety Danger



Patient Choice

Life Saver Rat Poison



Patient Choice

Blood tests at hospital, home or the surgery?



Patient Choice

Health

Disability





When **NOT** to Anticoagulate?

- Step 1
- Stroke Risk Score CHADSVASC 0 or 1
- Step 2
- Are there any Contraindications to Anticoagulation?
- Step 3
- Does the patient understand the risks of AF and the benefits and risk of anticoagulation
- Step 4**
- Have you done your best to relay that information to the patient?**

Doctor Choice?

- Many decisions due to lack in confidence with diagnosis or management
- Misconceptions of equivalence of aspirin
- Over magnification of warfarin risks
- Not allowing the patient to make their own choice (York project without face to face consultation)
- Cant expect every GP to be expert at everything!!!

Doctor Choice

- If you are not confident find someone who is
- Practice AF lead
- Local GPSI
- Auricle decision support
- Hospital
- **GP knows the patient best**





When **NOT** to Anticoagulate?

1. When there are no additional risk factors than AF
2. When there are additional bleeding risks or C/I
3. When the person is able to understand the risk of stroke and the benefits and risk of anticoagulation and then refuses treatment
4. When the health practitioner understands the evidence and believes that they have done their best

High risk AF????

- Under 65 but female
- Paroxysmal AF
- BP 160/90
- Normal heart
- Arrhythmogenic substrate
- CHADSVASc score 2
- I would sort out my BP and phone an EP friend!!!
- Thank you for your attention



(c) Adjusted stroke rate according to CHA₂DS₂-VASc score		
CHA₂DS₂-VASc score	Patients (n = 7329)	Adjusted stroke rate (%/year)^b
0	1	0%
1	422	1.3%
2	1230	2.2%
3	1730	3.2%
4	1718	4.0%
5	1159	6.7%
6	679	9.8%
7	294	9.6%
8	82	6.7%
9	14	15.2%

See text for definitions.

^aPrior myocardial infarction, peripheral artery disease, aortic plaque. Actual rates of stroke in contemporary cohorts may vary from these estimates.

^bBased on Lip et al.⁵³

AF = atrial fibrillation; EF = ejection fraction (as documented by echocardiography, radionuclide ventriculography, cardiac catheterization, cardiac magnetic resonance imaging, etc.); LV = left ventricular;

TIA = transient ischaemic attack.



- I would get fitter!!
- Sort out my BP
- And phone a friend!!
- Thank you for your attention
- PCCS bike ride 2010 will be London to Paris
- Kathryn.griffith@york.nhs.uk