National Screening Committees

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Aim

- Explore what are the key issues that act as barriers to National Screening Committees to promote AF screening

- Share my perspective on the position in the UK

- Discuss stance of screening committees in other countries

Screening Committees use Wilson-Junger Criteria

- **The condition**
- The test
- The treatment
- **The programme**

Key uncertainties: The condition: Prognosis of screen detected AF

- Symptomatic versus asymptomatic
- Paroxysmal versus permanent
- Accuracy of risk scores
- Community versus hospital populations
- Contemporary versus historic data

Stroke risk in AF in the BAFTA trial, Lancet 2007

	Primary event					
	Warfarin		Aspirin		Warfarin vs aspirin	
	n/N	Risk per year	n/N	Risk per year	RR (95% CI)	p†
Sex						
Male	10/267	1·4%	27/264	3·9%	0·35 (0·15–0·75)	0·23
Female	14/221	2·3%	21/221	3·5%	0·65 (0·30–1·33)	··
Age						
75–79	11/197	2·0%	15/200	2·8%	0·71 (0·29–1·65)	0·57
80–84	6/196	1·1%	19/190	3·8%	0·30 (0·10–0·77)	0·45
85+‡	7/95	2·8%	14/95	5·6%	0·50 (0·17–1·31)	··
Method of identification§						
Practice register	15/342	1·7%	38/341	4·5%	0·38 (0·20–0·71)	0·16
Screening	9/146	2·0%	10/144	2·3%	0·85 (0·31–2·33)	··
On warfarin before entry						
Yes	6/194	1·4%	21/187	5·1%	0·26 (0·09–0·68)	0·10
No	18/294	2·0%	27/298	3·1%	0·65 (0·34–1·23)	··
History of stroke or TIA						
Yes	5/64	3·1%	12/60	8·0%	0·39 (0·11–1·19)	0·66
No	19/424	1·6%	36/425	3·2%	0·51 (0·28–0·91)	··
CHADS2 score¶						
1–2	15/349	1·5%	31/349	3·3%	0·47 (0·23–0·89)	0·85
3–6	9/139	2·5%	17/136	5·0%	0·50 (0·20–1·20)	··

Stroke risk in AF in people not on warfarin in BAFTA, BMJ 2011

Score	Events/person years	Risk/100 person years (95% CI)
CHADS$_2$ index		
0	—	—
1	7/505	1.39 (0.56 to 2.86)
2	27/607	4.45 (2.95 to 6.41)
3	13/248	5.24 (2.82 to 8.80)
4	4/115	3.48 (0.96 to 8.67)
5	3/36	8.57 (1.80 to 23.06)
6	0/2	0 (0 to 84.19)*
CHA$_2$DS$_2$-VASc		
0	—	—
1	—	—
2	6/284	2.11 (0.77 to 4.60)
3	10/529	1.89 (0.91 to 3.48)
4	24/359	6.69 (4.28 to 9.95)
5	8/197	4.06 (1.75 to 8.01)
6	6/110	5.45 (2.00 to 11.87)
7	0/31	0 (0 to 11.90)*
8	0/5	0 (0 to 73.78)*

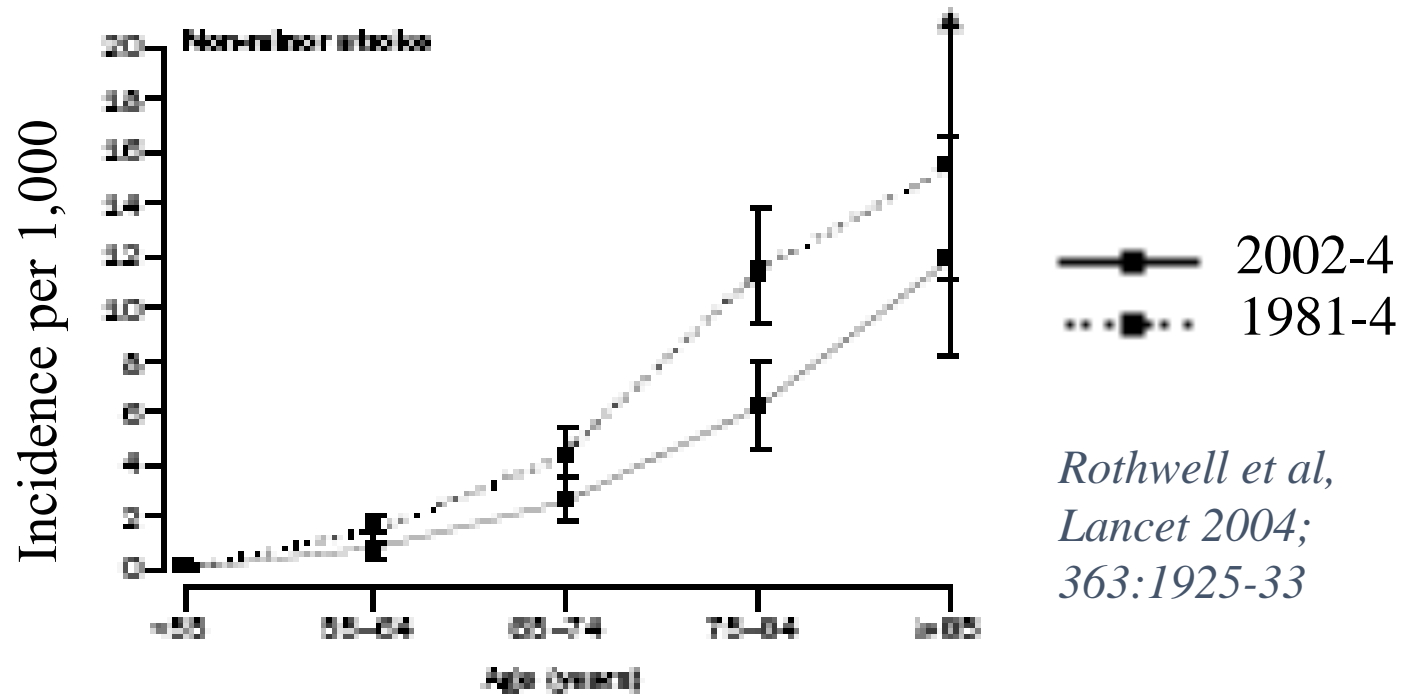**Table 2 | Event rate (95% CI) of hospital admission and death due to thromboembolism* per 100 person years**

Score/risk category	1 year's follow-up	5 years' follow-up	10 years' follow-up
CHADS$_2$:			
0	1.67 (1.47 to 1.89)	1.28 (1.19 to 1.38)	1.24 (1.16 to 1.33)
1	4.75 (4.45 to 5.07)	3.70 (3.55 to 3.86)	3.56 (3.42 to 3.70)
2	7.34 (6.88 to 7.82)	5.58 (5.35 to 5.83)	5.40 (5.18 to 5.63)
3	15.47 (14.62 to 16.36)	10.29 (9.87 to 10.73)	9.89 (9.50 to 10.31)
4	21.55 (20.03 to 23.18)	14.00 (13.22 to 14.82)	13.70 (12.95 to 14.48)
5	19.71 (16.93 to 22.93)	12.98 (11.52 to 14.63)	12.57 (11.18 to 14.14)
6	22.36 (14.58 to 34.30)	16.75 (11.91 to 23.56)	17.17 (12.33 to 23.92)
CHADS$_2$:			
Low risk (0)	1.67 (1.47 to 1.89)	1.28 (1.19 to 1.38)	1.24 (1.16 to 1.33)
Intermediate risk (1)	4.75 (4.45 to 5.07)	3.70 (3.55 to 3.86)	3.56 (3.42 to 3.70)
High risk (2-6)	12.27 (11.84 to 12.71)	8.30 (8.08 to 8.51)	7.97 (7.77 to 8.17)
CHA$_2$DS$_2$-VASc:			
0	0.78 (0.58 to 1.04)	0.69 (0.59 to 0.81)	0.66 (0.57 to 0.76)
1	2.01 (1.70 to 2.36)	1.51 (1.37 to 1.67)	1.45 (1.32 to 1.58)
2	3.71 (3.36 to 4.09)	3.01 (2.83 to 3.20)	2.92 (2.76 to 3.09)
3	5.92 (5.53 to 6.34)	4.41 (4.21 to 4.61)	4.28 (4.10 to 4.47)
4	9.27 (8.71 to 9.86)	6.69 (6.41 to 6.99)	6.46 (6.20 to 6.74)
5	15.26 (14.35 to 16.24)	10.42 (9.95 to 10.91)	9.97 (9.53 to 10.43)
6	19.74 (18.21 to 21.41)	12.85 (12.07 to 13.69)	12.52 (11.78 to 13.31)
7	21.50 (18.75 to 24.64)	13.92 (12.49 to 15.51)	13.96 (12.57 to 15.51)
8	22.38 (16.29 to 30.76)	14.07 (10.80 to 18.33)	14.10 (10.90 to 18.23)
9	23.64 (10.62 to 52.61)	16.08 (8.04 to 32.15)	15.89 (7.95 to 31.78)
CHA$_2$DS$_2$-VASc:			
Low risk (0)	0.78 (0.58 to 1.04)	0.69 (0.59 to 0.81)	0.66 (0.57 to 0.76)
Intermediate risk (1)	2.01 (1.70 to 2.36)	1.51 (1.37 to 1.67)	1.45 (1.32 to 1.58)
High risk (2-9)	8.82 (8.55 to 9.09)	6.01 (5.88 to 6.14)	5.72 (5.60 to 5.84)

*Includes peripheral artery embolism, ischaemic stroke, and pulmonary embolism.

Danish cohort study of prognosis of people admitted to hospital with AF

BMJ 2011

Change in stroke incidence 1981-2004

Rothwell et al,
Lancet 2004;
363:1925-33

Key uncertainties: The Programme

- Needs to be a whole system approach
  - People with AF are not currently treated
  - Most strokes that occur in people with AF are in those in whom the AF had already been identified
  - Shared decision making
- National screening programme versus case finding
  - Health checks in the UK
- No randomised data that screening for AF improves health outcomes
- Cost effectiveness is based upon assumptions of benefit

Experiences elsewhere...