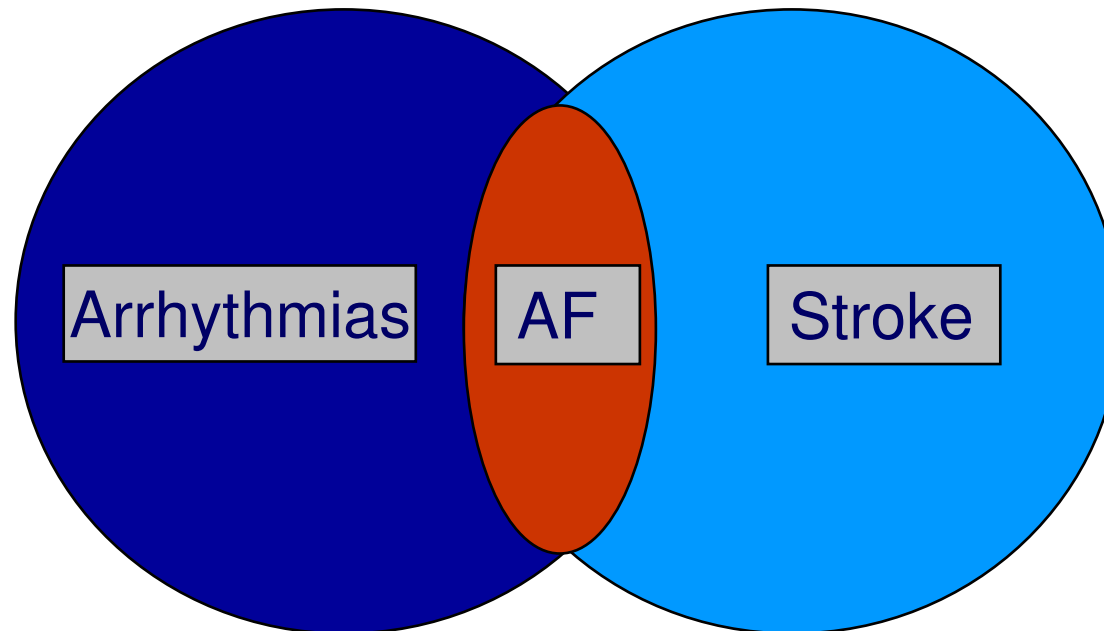


## Chapter 8 and Stroke Prevention



# AF is the interface between chapter 8 and stroke prevention



**Approx 14 % of all strokes are attributable to AF**



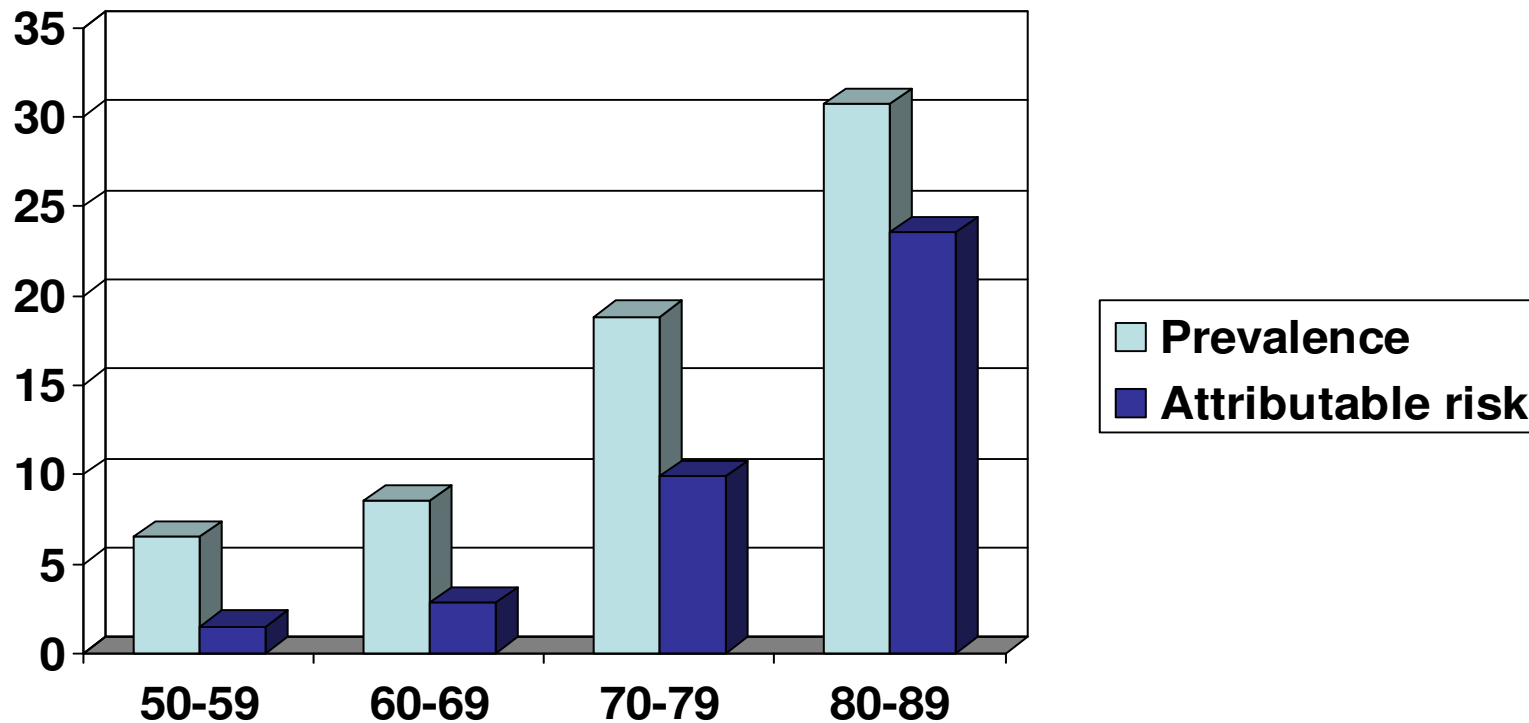
# AF and the prevention

- AF is very common
  - 1 – 1.3 % UK population with known AF
  - Approximately 600,000 patients in England
- Major predisposing factor to stroke
  - 16,000 strokes annually in patients with AF in England
  - Of these approx 12,500 are thought to be attributable to AF
    - 4,300 deaths in hospital
    - 3,200 discharges to residential care
    - 8,500 deaths within the first year

DH figures 2007

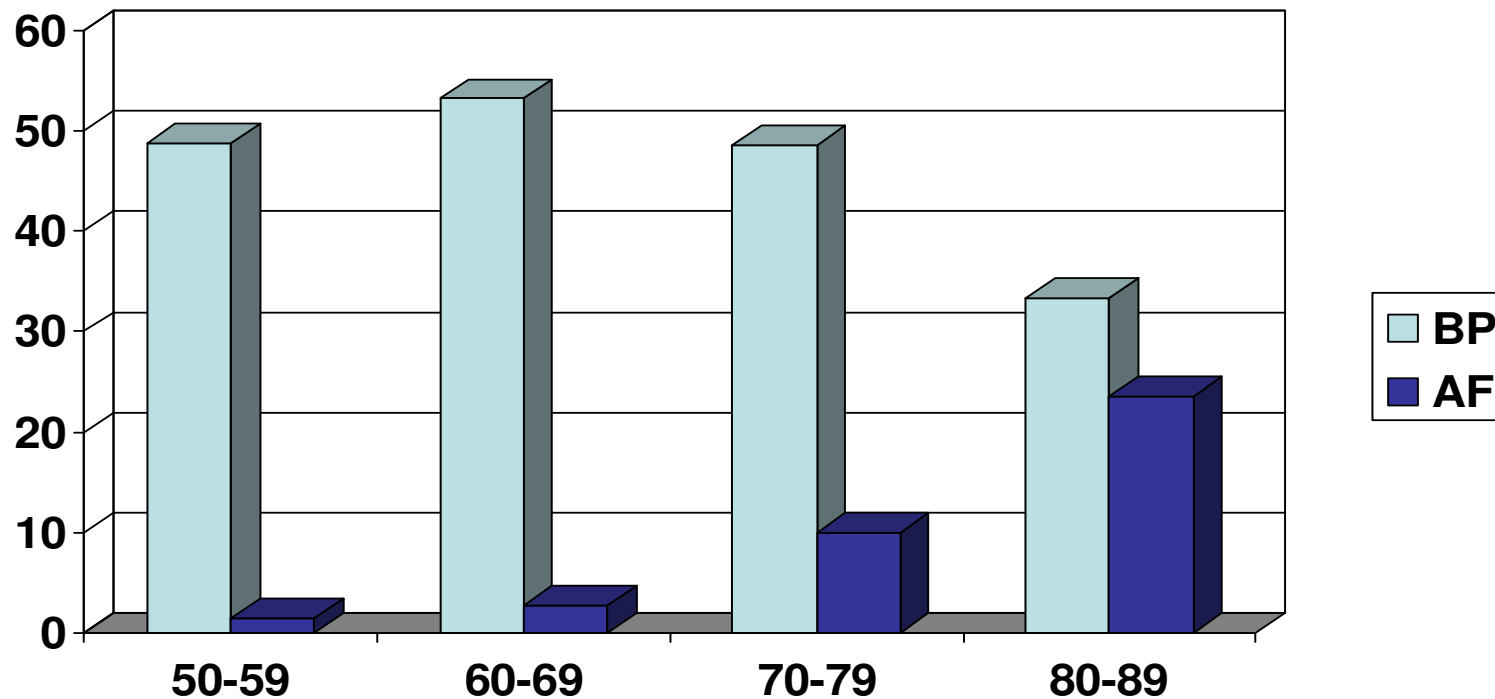


# Attributable risk - AF





# Attributable risk of stroke





# Risk reduction with warfarin

- Reduces relative risk of stroke by approx 70 %
- Absolute risk reduction
  - Primary stroke 2.7 %
  - Secondary stroke 8.4 %
- Numbers needed to treat for 1 year to prevent 1 stroke
  - Primary stroke 37
  - Secondary stroke 12
  - Overall 25 (approx)



## Risks / costs associated with AF

- 12,500 strokes annually attributed to AF in UK
- Excess costs attributable to AF £ 148 million
  - Hospital stay cost £103 million
  - Post-discharge care £45 million
- Cost per stroke is £11,900
- These estimates do not include continuing costs after first year



## Costs attributable to treating AF

- Annual cost per patient £383
- Costs per stroke averted £9,575 – £14,171
- Additional costs due to major bleeds  
£236 – 349 / patient

**Treatment saves money and pays for itself**



# Under anti-coagulation of AF

- Amongst patients with recognized AF, approx half of those who would benefit from warfarin are receiving it
- NICE estimate that of 355,000 patients who should be taking warfarin
  - 189,000 are actually receiving it.
  - An additional 166,000 should be receiving it

NICE costing report 2006



# Audit tool

- GP database interrogation based on Miquet
- Stroke risk stratification based on CHADS 2 score
- A few minutes work to identify pts for review who might benefit from warfarin
- **Preliminary data confirms that 40-50 % of pts who might benefit from warfarin are not receiving it**



## CHADS<sub>2</sub> score

Congestive heart failure	1
History of hypertension	1
Age > 75	1
Diabetes	1
Stroke / TIA	2

**Warfarin indicated when CHADS<sub>2</sub> score  $\geq$  2**



## Determine stroke/thromboembolic risk

### High risk:

- Previous ischaemic stroke/TIA or thromboembolic event
- Age >75 with hypertension, diabetes or vascular disease
- Clinical evidence of valve disease, heart failure, or impaired left ventricular function on echocardiography

### Moderate risk:

- Age >65 with no high risk factors
- Age <75 with hypertension, diabetes or vascular disease

### Low risk:

- Age <65 with no moderate or high risk factors

NICE Guidelines



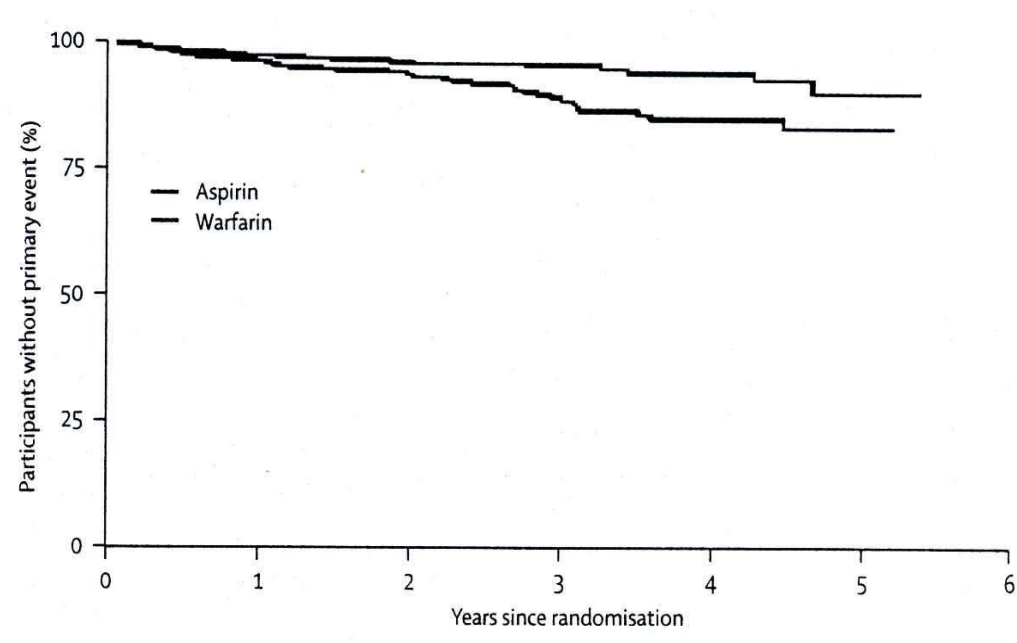
# Existing AF QOF Allocation

		Points
AF1	The practice can produce a register of patients with AF	5
AF2	The % of patients with AF diagnosed with ECG or specialist confirmed diagnosis	10
AF3	The % of patients with AF who are currently treated with anti-coagulation drug therapy or an anti-platelet therapy	15



# BAFTA - primary endpoints

- Primary endpoints
  - Fatal or non-fatal disabling stroke
  - Other intracranial haemorrhage
  - Arterial embolism
- Warfarin 1.8 % / year  
Aspirin 3.8 % / year  
Relative risk 0.48  
(95 % CI 0.28 – 0.8)





# BAFTA – Annual risk of extra-cranial haemorrhage



- Warfarin 1.4 %
- Aspirin 1.6 %

Warfarin did not increase haemorrhagic risk  
in comparison with aspirin



# Existing AF QOF Allocation

		Points
AF1	The practice can produce a register of patients with AF	5
AF2	The % of patients with AF diagnosed with ECG or specialist confirmed diagnosis	10
<del>AF3</del>	<del>The % of patients with AF who are currently treated with anti-coagulation drug therapy or an anti-platelet therapy</del>	<del>15</del>



# Possible Changes to QOF

- AF1 The practice can produce a register of patients with AF
- AF2 The % of patients with AF diagnosed after 1 April 2008 with ECG or specialist confirmed diagnosis
- AF3 The % of patients with AF in whom stroke risk has been assessed using an accepted scoring system (CHADS or NICE) in the last 15 months
- AF4 The % of patients at high risk of stroke who are receiving anti-coagulants (unless a contra-indication or side effects are recorded)