

# Palpitations & AF

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# Palpitations

- Frequent symptom
- Less than 50% associated with arrhythmia
- Anxiety often associated
- However, maybe sign of
  - Structural heart disease
  - risk of future CVA
  - Risk of sudden death

# What to do with patient with palpitations?

- Clear history
  - What does patient mean exactly?
  - Associated symptoms?
  - Contributory factors?
  - Family history?

# Investigations

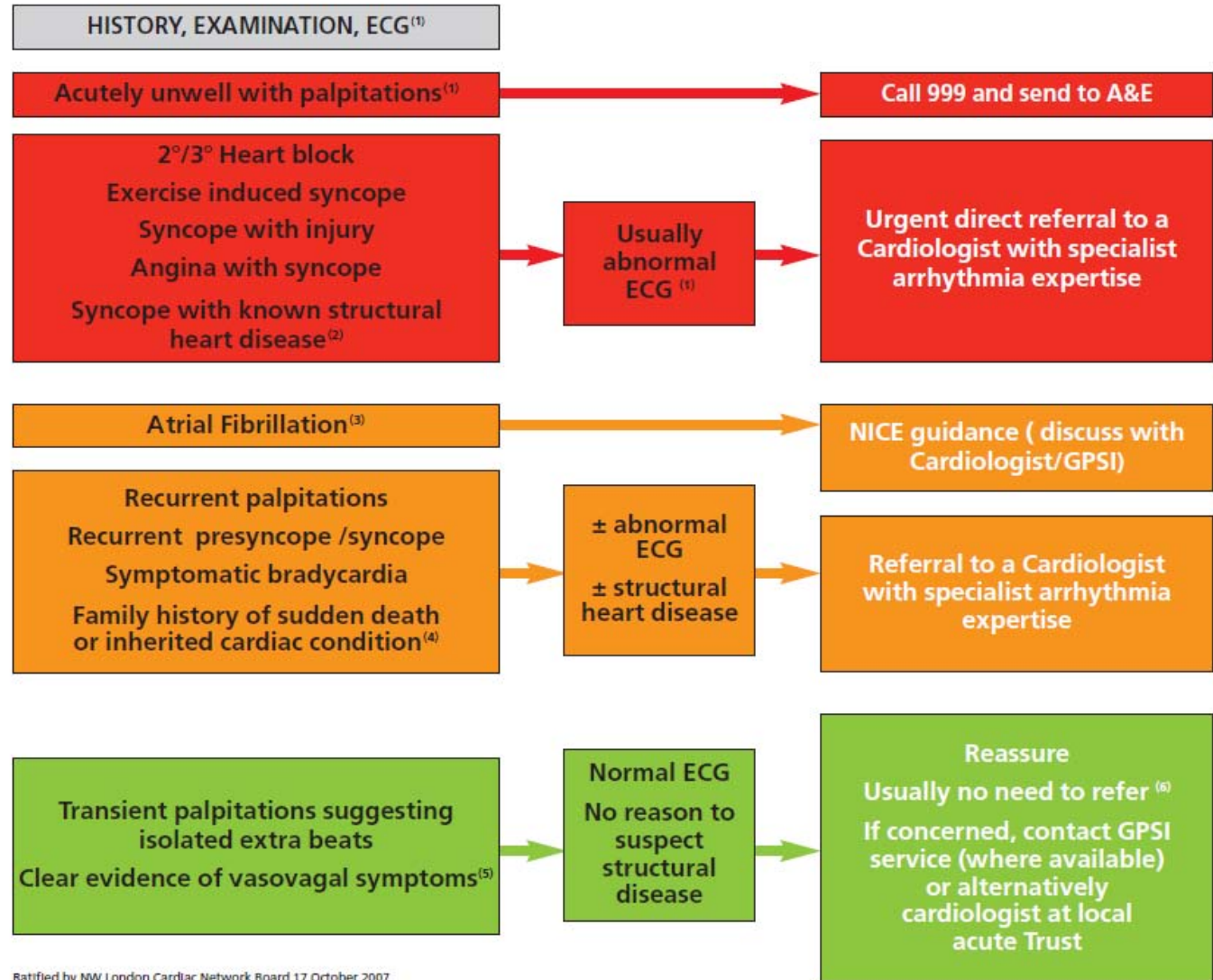
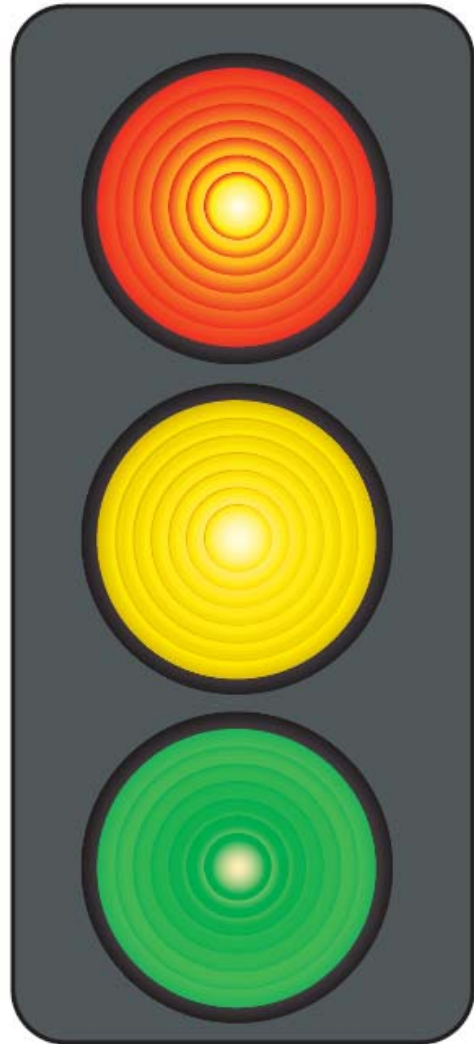
- Basic
  - Bloods
    - FBC, U&E, TFT
  - ECG
    - AF
    - 2<sup>nd</sup> or 3<sup>rd</sup> degree AV block
    - Previous MI
    - LVH
    - Abnormal T wave inversion & ST-segment changes
    - Pre-excitation
    - Abnormal QTc & T wave morphology
    - Brugada pattern

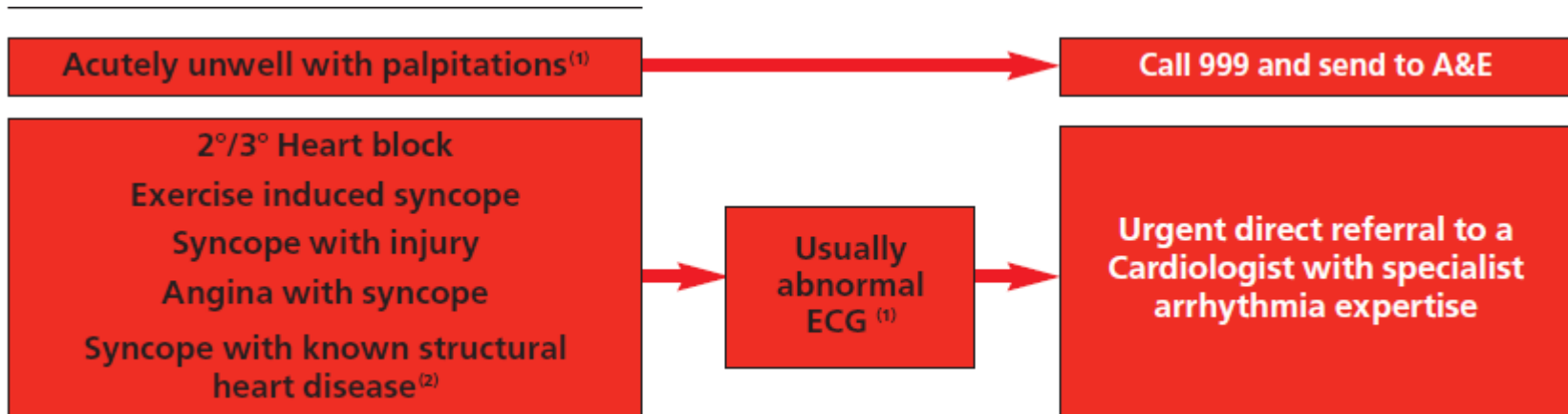
# Ambulatory ECG monitoring

- Not all patients need it
- Aim to correlate ECG with symptoms
- Duration of monitoring?
- Patient activated loop recorder
- Need expert interpretation.
- Is open access beneficial?



# Traffic light system for the new referral of patients with suspected cardiac arrhythmia, cardiac syncope or those with a family history of sudden cardiac death in a family member under the age of 35 years

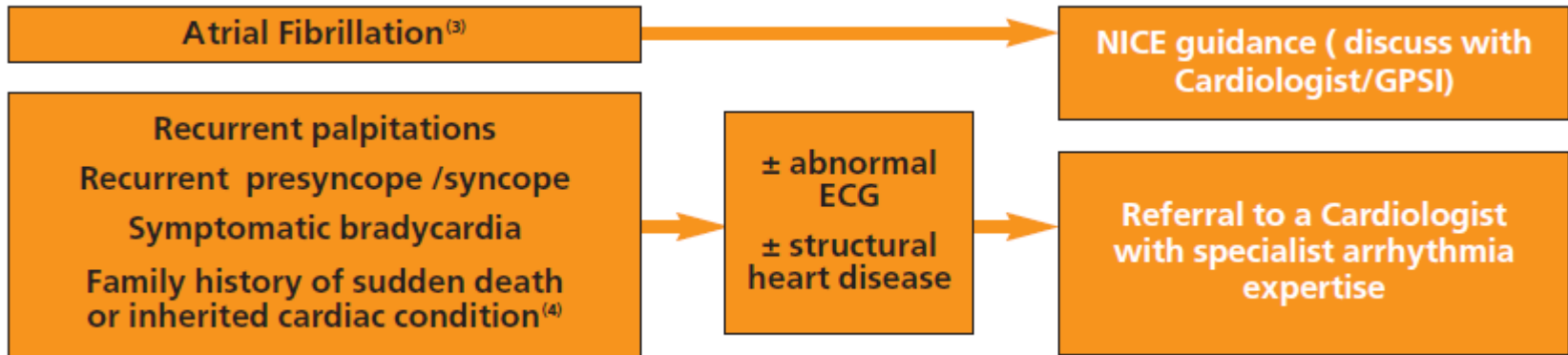




Abnormal ECG

Structural Heart Disease

- History of previous MI
- Cardiomyopathy
- Valvular Heart disease
- Cardiac failure
- LV hypertrophy
- Congenital heart disease



Transient palpitations suggesting isolated extra beats  
Clear evidence of vasovagal symptoms<sup>(5)</sup>

Normal ECG  
No reason to suspect structural disease

Reassure  
Usually no need to refer<sup>(6)</sup>  
If concerned, contact GPSI service (where available) or alternatively cardiologist at local acute Trust

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Page 1

'Skipped' beats  
'Thumping' beats  
Short duration  
Slower rate  
Normal ECG  
NO Family history  
NO structural heart disease

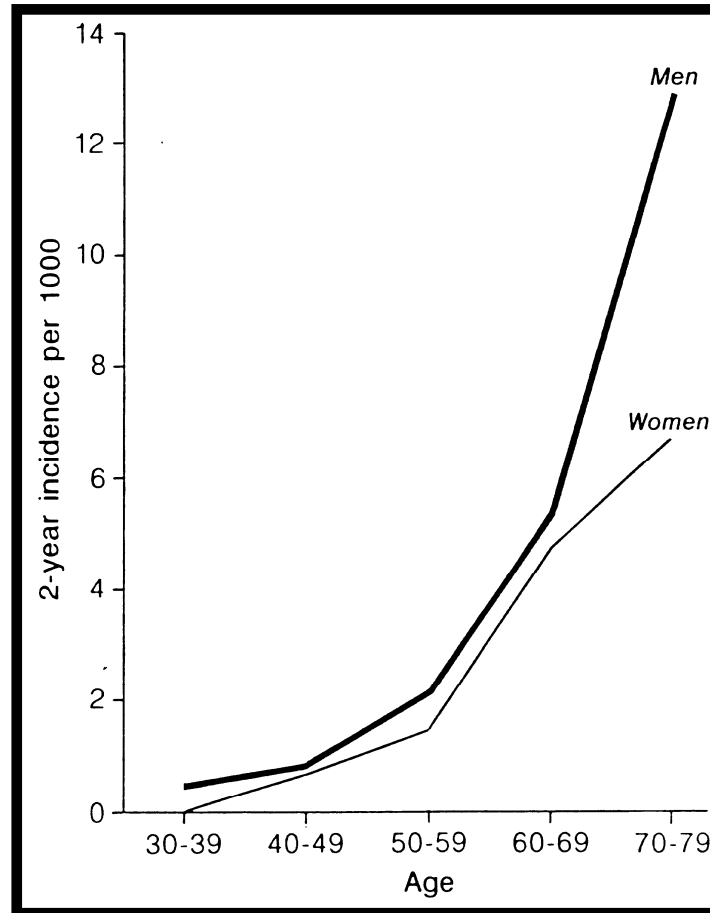
# Atrial fibrillation

June 2006



# ATRIAL FIBRILLATION Incidence

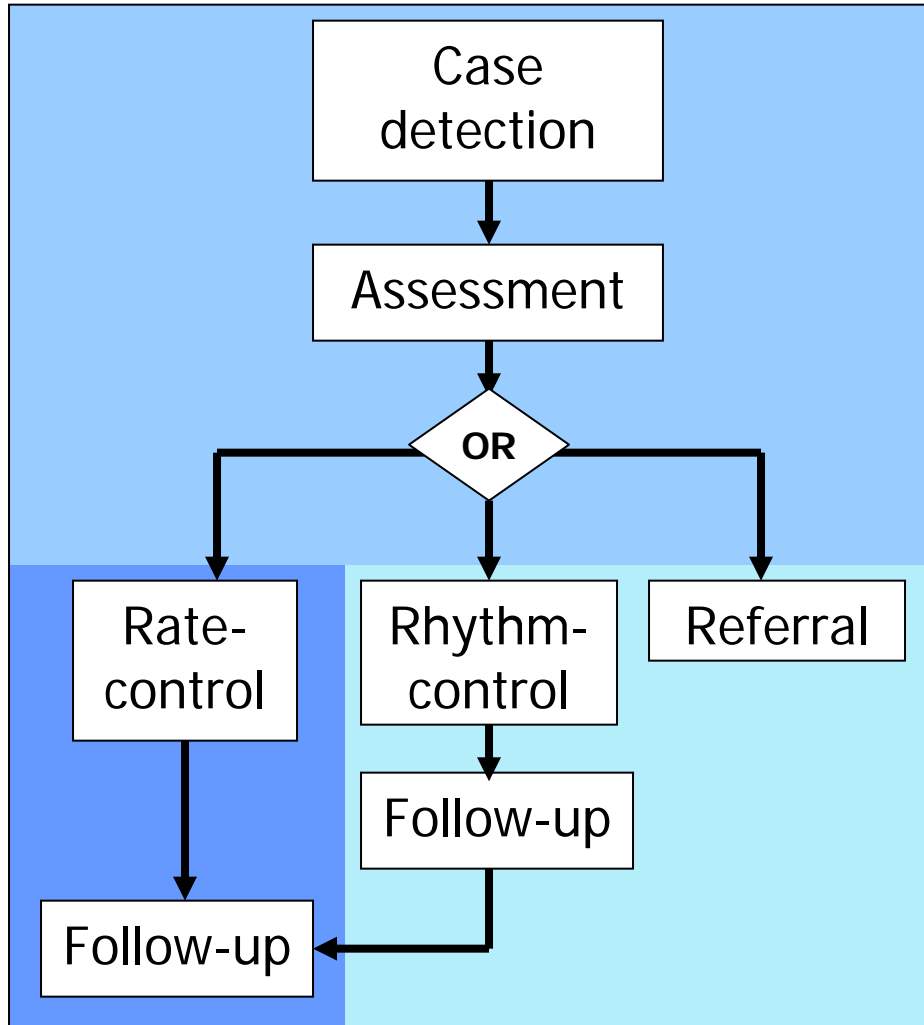
Framingham  
Heart Study



# Classification of AF

Terminology	Clinical features	Pattern
Initial event (first detected episode)	Symptomatic Asymptomatic Onset unknown	May or may nor reoccur
Paroxysmal	Spontaneous termination <7 days and most often <48 hours	Recurrent
Persistent	Not self-terminating Lasting >7 days or prior cardioversion	Recurrent
Permanent (‘accepted’)	Not terminated Terminated but relapsed No cardioversion attempt	Established

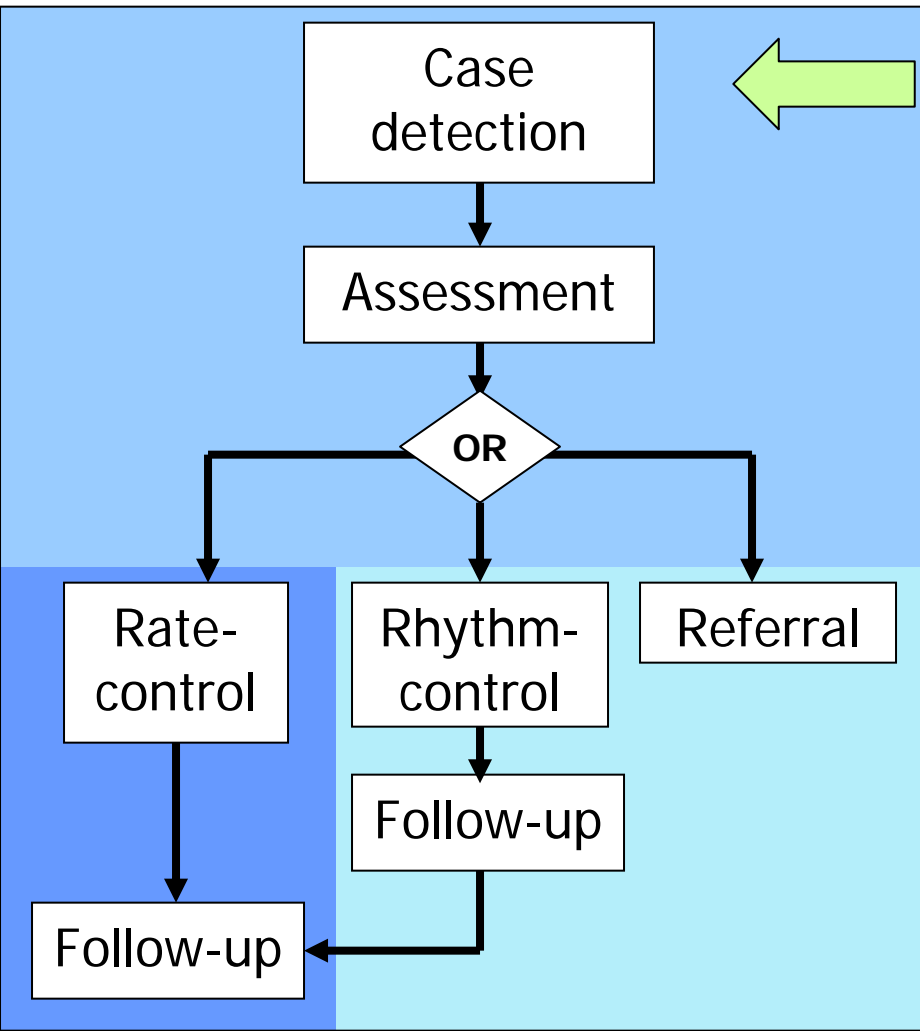
# AF care pathway



The management and presentation of AF involves all healthcare settings

- Primary/secondary/emergency care
- Primary/secondary care
- Secondary/tertiary care

# Key priority – detection and diagnosis



An ECG should be performed in all patients, whether symptomatic or not, in whom AF is suspected because an irregular pulse has been detected

# Suggested actions

- People with undiagnosed AF can receive treatment sooner if opportunistic case finding is undertaken using **manual pulse palpation**
- Promote opportunistic case detection and targeting of patients at increased risk:
- **Primary care:** appropriate long-term condition registers, people aged >65 years, flu vaccination programme
- **Secondary care:** A&E, outpatient clinics and wards, especially care of the elderly

# Suggested actions

- Remember to use ECG to confirm diagnosis and the routine recording of ECG results
- Review access to diagnostics – irrespective of how services are structured locally, easy access and rapid reporting are essential
- Remember incentives and encourage practices to establish and maintain a practice-based AF register in line with the QOF 06/07 AF indicators
- Consider establishing a PCT-led, community-based, rapid-access arrhythmia clinic

# rhythm vs rate control

## Try rhythm-control first for patients with persistent AF:

- who are symptomatic
- who are younger
- presenting for the first time with lone AF
- secondary to a treated or corrected precipitant
- with congestive heart failure.

## Try rate-control first for patients with persistent AF:

- over 65
- with coronary artery disease
- with contraindications to antiarrhythmic drugs
- unsuitable for cardioversion<sup>3</sup>.

# Patients with 'non-rheumatic' AF

## 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:

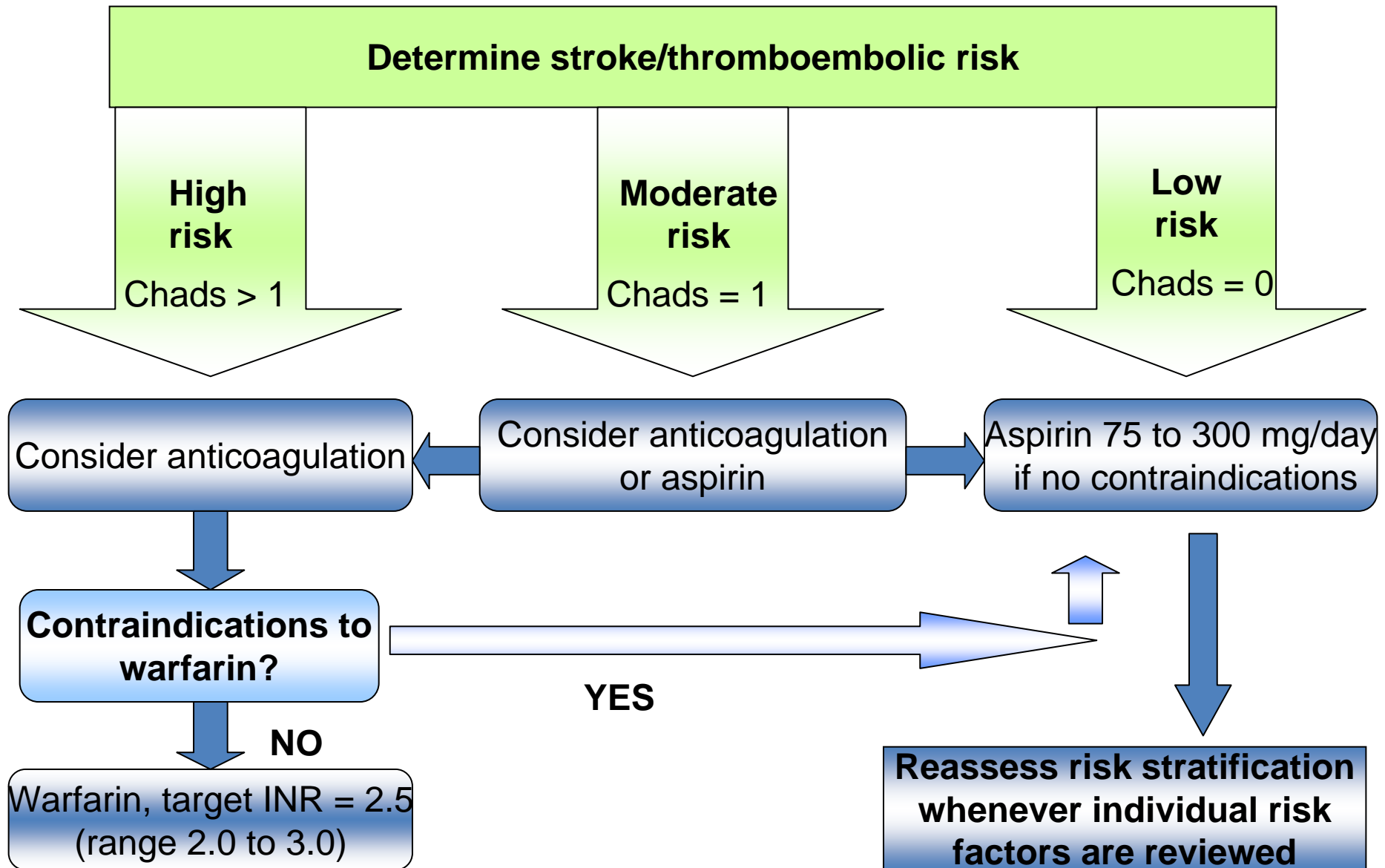
- Age <65 with no moderate or high risk factors

## CHADS2 Score for Atrial Fibrillation Stroke Risk

<b>Congestive Heart Failure history?</b>	<input type="checkbox"/> Yes +1
<b>Hypertension history?</b>	<input type="checkbox"/> Yes +1
<b>Age <math>\geq</math> 75?</b>	<input type="checkbox"/> Yes +1
<b>Diabetes Mellitus history?</b>	<input type="checkbox"/> Yes +1
<b>Stroke symptoms previously or TIA?</b>	<input type="checkbox"/> Yes +2

Score	Annual CVA risk (%)	Risk category
0	2	LOW
1	3	MODERATE
2	4	HIGH
3	6	HIGH
4	8.5	HIGH
5	12.5	HIGH
6	18	HIGH

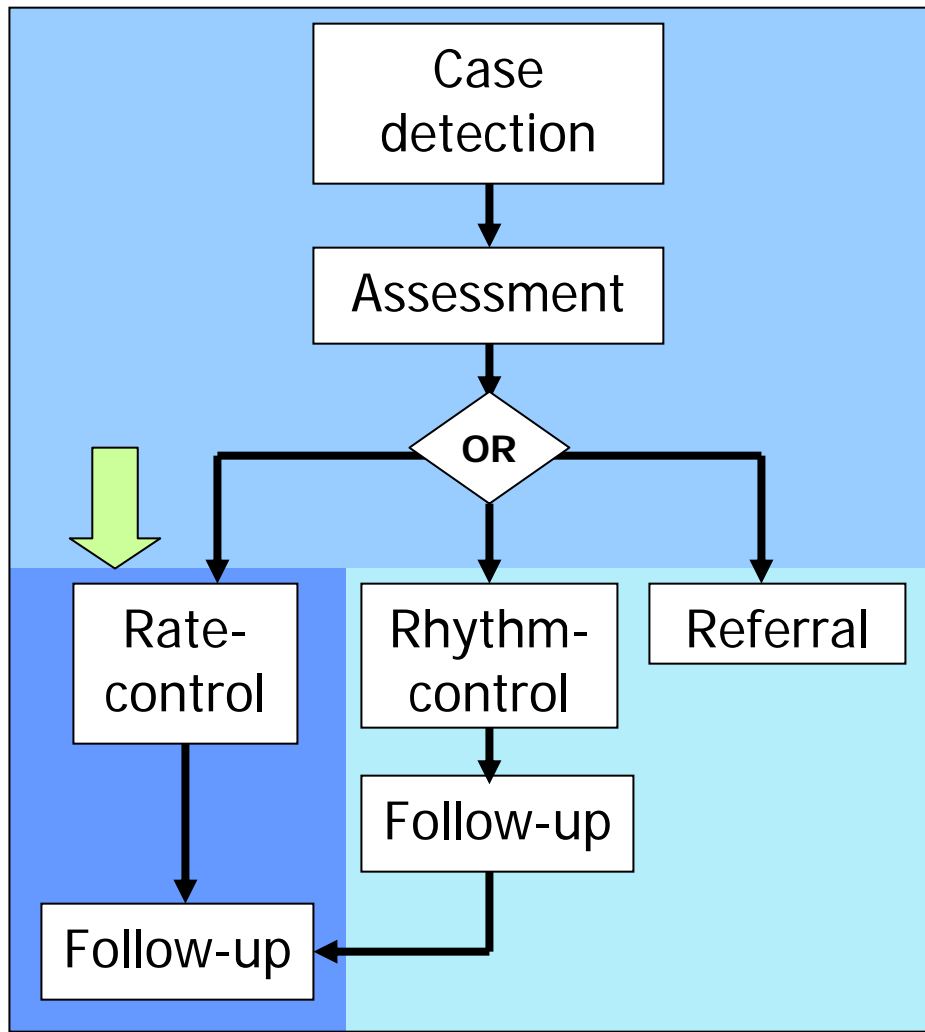
# Thromboembolic prophylaxis in patients with AF



## HAS-BLED Score for Major Bleeding Risk

<b>Hypertension History?</b> (uncontrolled, >160 mmHg systolic)	<input type="checkbox"/> <b>Yes</b> +1
<b>Renal Disease?</b> (Dialysis, transplant, Cr >2.6 mg/dL or >200 $\mu$ mol/L)	<input type="checkbox"/> <b>Yes</b> +1
<b>Liver Disease?</b> (Cirrhosis, Bilirubin >2x Normal, AST/ALT/AP >3x Normal)	<input type="checkbox"/> <b>Yes</b> +1
<b>Stroke History?</b>	<input type="checkbox"/> <b>Yes</b> +1
<b>Prior Major Bleeding or Predisposition to Bleeding?</b>	<input type="checkbox"/> <b>Yes</b> +1
<b>Labile INR?</b> (Unstable/high INRs, <60% time in therapeutic range)	<input type="checkbox"/> <b>Yes</b> +1
<b>Age <math>\geq</math>65?</b>	<input type="checkbox"/> <b>Yes</b> +1
<b>Medication Usage Predisposing to Bleeding?</b> (Antiplatelet agents, NSAIDs)	<input type="checkbox"/> <b>Yes</b> +1
<b>Alcohol Usage History?</b>	<input type="checkbox"/> <b>Yes</b> +1

# Key priority – optimise pharmacological management



In patients with permanent AF, who need treatment for rate-control:

– beta-blockers or rate-limiting calcium antagonists should be the preferred initial monotherapy in all patients

– digoxin should only be considered as monotherapy in predominantly sedentary patients

# Treatment for paroxysmal AF

- Patients with paroxysmal AF can be highly symptomatic
- Three main aims of treatment for paroxysmal AF are to:
  1. suppress paroxysms of AF and maintain sinus rhythm
  2. control heart rate during paroxysms of AF
  3. prevent complications
- Treatment strategies include out-of-hospital initiation of antiarrhythmic drugs: 'pill in the pocket' approach
- Patients with paroxysmal AF carry the same risks of stroke and thromboembolism as those with persistent AF

# Rhythm control strategies

- Avoid precipitants
- Regular medication
- ‘Pill in the pocket’
- Ablation
  - Important difference between atrial flutter and atrial fibrillation
  - Who is appropriate?
  - Risks
  - Long term results?

# Practicalities of curative AF ablation

- Pre op - CT few weeks pre-op
- TOE on day
- ACT >300 during procedure
- Procedure time 2-3 hours PAF/ 3-4 hours Persistent
- Post-op echo
- Warfarin loading on night of procedure
  - Continues for 3 months if low risk
- Enoxaparin day after until INR>2

# Complications of AF ablation

- 2% pericardial effusion/tamponade
- 3% Femoral haematoma
- <0.5% stroke/TIA
- <0.5% PV stenosis

# Recurrence

- Usually occurs <3months (late recurrence is rare)
- May settle over a 3 to 6 month period
- Results in 28% to 40% of patients requiring redo

# Who should have AF ablation

- Symptomatic (incl heart failure?)
- Persistent AF for <5 years
- Prepared to go through multiple procedures
- Prepared for the risks

# Summary

- Palpitations and arrhythmias are a common and important symptom.
- Accurate diagnosis and treatment can significantly reduce morbidity and mortality
- MOST important thing to remember with AF is assess and treat the thromboembolic risk