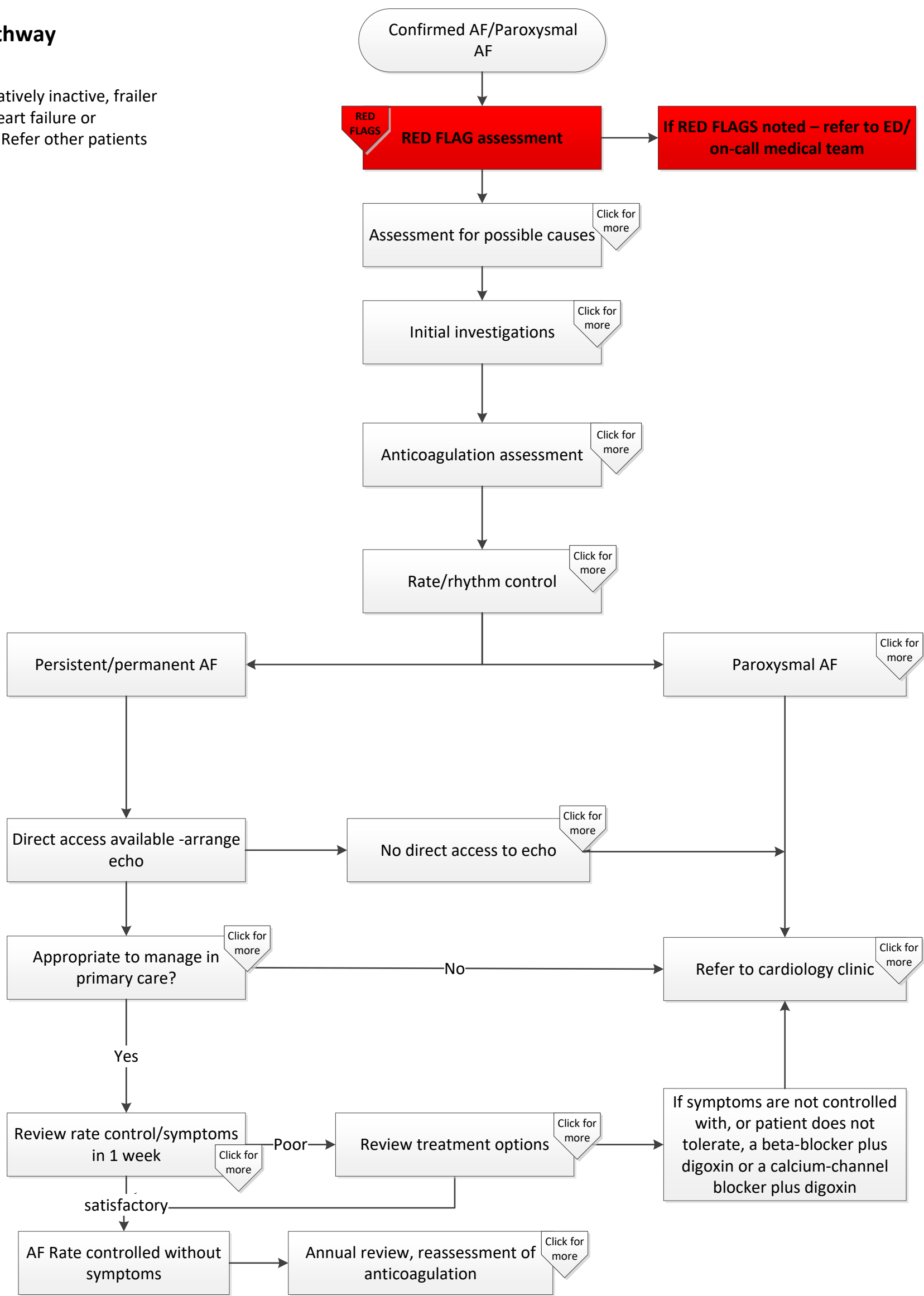


# Confirmed AF Management Pathway

\*May be appropriate in asymptomatic, relatively inactive, frailer patients, without known LV impairment/heart failure or according to informed patient preference. Refer other patients for cardiological opinion



## Initial medical assessment for RED FLAGS

- Refer for urgent hospital assessment if the patient has any of the following:
- Rapid pulse (greater than 150bpm) and or/low BP (systolic BP less than 90mmHg).
- Loss of consciousness
- Severe dizziness
- Ongoing chest pain
- Increasing breathlessness
- A complication of AF, such as stroke, TIA or acute heart failure

Although most patients with AF present without haemodynamic compromise, some are significantly compromised and require immediate hospitalisation and urgent intervention to:

- Alleviate symptoms of breathlessness, chest pain and loss of consciousness
- Restore haemodynamic stability.

## Consider and address underlying causes of AF

Often caused by co-existing medical conditions – both cardiac and non-cardiac

Common cardiac causes include:

- Ischaemic heart disease – specifically mitral valve disease
- Hypertension
- Sick sinus syndrome
- Pre-excitation syndromes, e.g. Wolff-Parkinson-White

Less common cardiac causes include:

- Cardiomyopathy or heart muscle disease
- Pericardial disease, including effusion and constrictive pericarditis
- Atrial septal defect
- Atrial myxoma

Non-cardiac causes include:

- Acute infections, especially pneumonia
- Electrolyte depletion
- Lung carcinoma
- Other intrathoracic pathology, e.g. pleural effusion
- Pulmonary embolism
- Thyrotoxicosis

Risk factors include:

- Increasing age - the prevalence of AF roughly doubles with advancing decade of age, from 0.5% at age 50-59 years to almost 9% at age 80-89 years
- AF is very uncommon in infants and children, unless concomitant structural or congenital heart disease is present
- Hypertension
- Valve disease
- Diabetes mellitus (DM)
- Surgery, especially cardiothoracic operations such as thoracotomy and coronary artery bypass graft (CABG)
- Lifestyle factors, such as: excessive alcohol consumption, excessive caffeine consumption and emotional or physical stress

## Initial Investigations

N.B: If referral is considered appropriate do not wait for results of investigations before referring

Use clinical judgement to determine the need for the following:

- Full blood count (FBC)
  - Haemoglobin to exclude anaemia and for the baseline values for future monitoring
  - Platelets as a baseline for monitoring bleeding risk
- Urea and electrolytes to exclude electrolyte disturbances, which may precipitate AF
- Thyroid function tests
- Calcium and magnesium
- Glucose
- Chest radiography – to investigate a suspected abnormality e.g. lung cancer or heart failure

Additional blood tests are needed prior to anticoagulation:

- Clotting studies
- Liver function tests

## Rate and Rhythm Control

In people with AF presenting acutely without life-threatening haemodynamic instability:

- Offer either rate or rhythm control if the onset of the arrhythmia is less than 48 hours
- Offer rate control if onset is more than 48 hours or is uncertain
- In people with AF presenting acutely with suspected concomitant acute decompensated heart failure, seek senior specialist input on the use of beta-blockers and do not use calcium-channel blockers

### **Rate control:**

- Offer rate control as the first-line treatment strategy for AF, **EXCEPT in people:**
  - Whose AF has a reversible cause
  - With new-onset AF
  - Who have heart failure thought to be primarily caused by AF
  - With atrial flutter whose condition is considered suitable for an ablation strategy to restore sinus rhythm
  - Based on clinical judgement, would be more appropriate for rhythm control

Offer either a standard beta-blocker (other than sotalol) or a rate-limiting calcium-channel blocker (diltiazem or verapamil) as first line treatment for people with AF. Base the choice of drug on the person's symptoms, heart rate, comorbidities and preferences

Digoxin is a possible alternative in people with non-paroxysmal AF if they do little or no exercise, or if other rate-limiting drug options are ruled out because of comorbidities or patient preference.

- If monotherapy does not control the person's symptoms, and if continuing symptoms are thought to be caused by poor ventricular rate control, consider combination therapy with any 2 of the following:
  - A beta-blocker
  - Diltiazem
  - Digoxin
- Do not offer amiodarone for long term rate control

### **Rhythm control**

Refer patient to specialist for consideration of rhythm control, including pharmacological treatment, cardioversion, left atrial ablation and a pace and ablate strategy if:

- They do not fall into the groups recommended for rate control, OR
- Where symptoms continue after heart rate is controlled OR
- Where rate control has not been successful

**If any clinical concern, consider seeking advice & guidance from Cardiology about medication regimes**

Back to  
pathway

## Paroxysmal AF

- Self terminating, usually within 48 hours
- **Referral to a cardiologist for this patient group is recommended - to exclude underlying ischaemic heart disease or other structural heart disease and to consider interventional treatment options - however patient preference should be taken into account**
- Requires antiarrhythmic drugs that are not usually started in primary care (e.g. amiodarone or sotalol) – advice given in the BNF is that class I and III drugs (e.g. flecainide) should usually only be started by a specialist
- The chances of cardiological interventions leading to maintenance of sinus rhythm or substantially reducing the paroxysms of AF are considerably higher than in persistent AF owing to better preservation of atrial function

Back to  
pathway

## **Consider ECHO**

Perform transthoracic echocardiography (TTE) in people with atrial fibrillation:

- For whom a baseline echocardiogram is important for long-term management
- For whom a rhythm-control strategy that includes cardioversion (electrical or pharmacological) is being considered
- In whom there is a risk or a suspicion of underlying structural/functional heart disease (such as heart failure or heart murmur) that influences their subsequent management (for example, choice of antiarrhythmic drug or anticoagulant).
- In whom refinement of clinical risk stratification for antithrombotic therapy is needed.



## Is it appropriate to manage the patient in Primary Care?

May be appropriate in asymptomatic, relatively inactive, frailer patients without known LV impairment/heart failure, palliative patients or according to informed patient preference

Refer other patients for cardiological opinion





## **Monitor progress – follow-up one week**

Follow-up within 1 week:

- Check for ongoing symptoms, both at rest and upon exercise
- Check heart rate and blood pressure
- Check for complications of AF – identify and manage existing heart failure or hypertension
- Review medication

## Review treatment options

If the patient's symptoms and/or heart rate are not controlled, consider increasing the dose to control symptoms

If the patient is taking the maximum dose, consider combining drug treatments:

- To control symptoms with normal activities only, offer a beta-blocker or calcium-channel blocker (diltiazem or verapamil) with digoxin
- To control symptoms during normal activities and during exercise, offer a calcium-channel blocker (diltiazem or verapamil) with digoxin
- If the patient is already taking a beta-blocker, it may be more practical to add in digoxin first, and if symptoms are still not controlled, then switch the beta-blocker with a calcium-channel blocker

**DO NOT initiate a combination of a beta-blocker and a rate-limiting calcium-channel blocker in primary care**

## Consider referral to Cardiologist

- Any known valvular disease
- Patients with a murmur and no prosthetic heart valve
- Symptomatic patients EHRA (European Heart Rhythm Association) class 2 or above (breathless, palpitations, reduced exercise tolerance) despite rate control
- Known impaired LV function
- Suspected new ischaemic heart disease
- If ablation or cardioversion could be considered i.e. in younger active patients in whom the long-term implications of AF and subsequent anticoagulation are significant.

***N.B Intervention with ablation or cardioversion is more likely to be more successful in early stages after diagnosis***

## **Continue to reduce stroke risk and monitor patient at least annually**

At least annual review of CHA<sub>2</sub>DS<sub>2</sub>VASc and ORBIT scores are needed with review of symptoms, blood pressure and appropriate treatment and lifestyle advice to prevent stroke and referral to consultant cardiologist where appropriate

Reviewing established AF

- Check for ongoing symptoms, both at rest and upon exercise
- Check heart rate and blood pressure
- Check for complications of AF – identify and manage existing heart failure or hypertension
- Review medication

# Anticoagulation Assessment

## **CHA<sub>2</sub>DS<sub>2</sub>VASc score**

Assess the patient's stroke risk using the CHA<sub>2</sub>DS<sub>2</sub>VASc score in those with any of the following:

- Symptomatic or asymptomatic paroxysmal, persistent or permanent atrial fibrillation
- Atrial flutter

Offer anticoagulation with a direct-acting oral anticoagulant (DOAC) to people with AF and a CHA<sub>2</sub>DS<sub>2</sub>VASc score of 2 or above, and consider a DOAC for men with AF and a CHA<sub>2</sub>DS<sub>2</sub>VASc score of 1.

Do not offer antithrombotic therapy to people aged under 65 years with AF and no risk factors other than their sex (that is, very low risk of stroke equating to CHA<sub>2</sub>DS<sub>2</sub>VASc score of 0 for men or 1 for women)

Congestive heart failure/left ventricular dysfunction (heart failure with reduced ejection fraction, or people with recent decompensated heart failure requiring hospitalization, irrespective of ejection fraction) = 1

Hypertension (resting blood pressure greater than 140 mmHg systolic and/or greater than 90 mmHg diastolic on at least 2 occasions or current antihypertensive pharmacologic treatment) = 1

Age ≥ 75 years = 2

Diabetes mellitus (fasting plasma glucose level of 7.0 mmol/L [126 mg/dL] or more or treatment with oral hypoglycaemic drugs and/or insulin) = 1

Stroke/TIA history = 2

Vascular disease (prior myocardial infarction, peripheral arterial disease, or aortic plaque) = 1

Age 65–74 years = 1

Sex category (female) = 1

## **ORBIT Score**

Assess the patient's bleeding risk when considering starting anticoagulation in people with AF:

- Orbit score 0-2 = low risk
- Orbit score 3 = medium risk
- Orbit score 4-7 = high bleeding risk

Older (≥ 75 years) = 1

Reduced haemoglobin (<13mg/dL in men and <12 mg/dL in women), haematocrit (<40% in men and <36% in women) or history of anaemia = 2

Bleeding history = 2

Insufficient kidney function (eGFR <60mg/dL/1.73m<sup>2</sup> = 1

Treatment with an antiplatelet agent = 1

## **Anticoagulation counselling**

When discussing the benefits and risks of anticoagulation and the available drugs, use clinical risk profiles and personal preferences to guide treatment choices:

For most people the benefit of anticoagulation outweighs the bleeding risk.

For people with an increased risk of bleeding, the benefit of anticoagulation may not always outweigh the bleeding risk, and careful monitoring of bleeding risk is important.

Do not withhold anticoagulation solely because of a person's age or their risk of falls.

If DOACs are contraindicated, not tolerated or not suitable, offer a vitamin K antagonist.