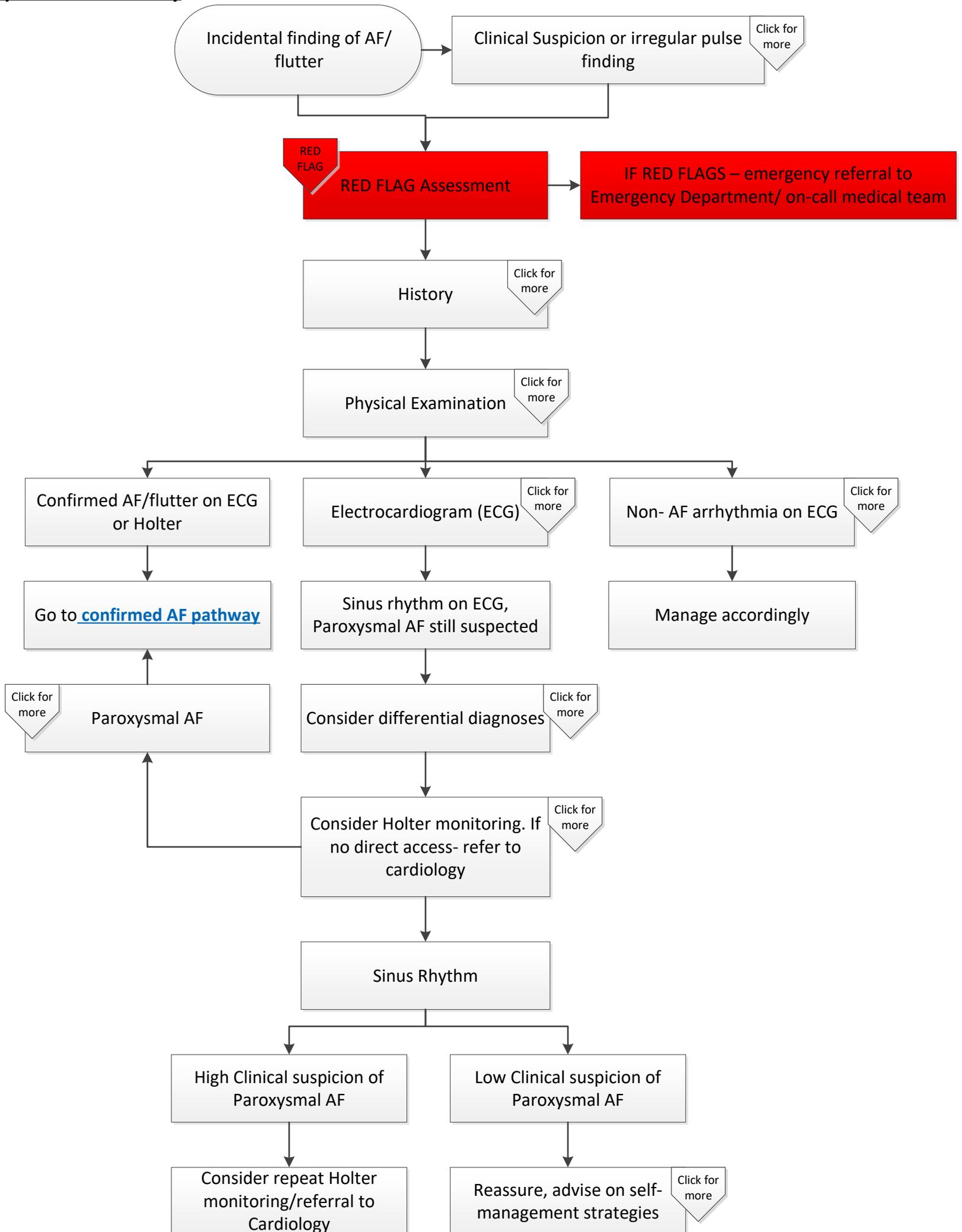


Suspected AF Pathway



Clinical Finding – Irregularly Irregular Pulse

Asymptomatic atrial fibrillation (AF):

- Many asymptomatic patients are picked up in general practice – may be discovered incidentally by cardiac auscultation, 12-lead ECG or 24-hour Holter recording
- In some cases, asymptomatic AF may only be detected when the patient presents with serious complications, such as a stroke, thromboembolism, or heart failure – whether AF was the cause or effect of the acute problem may then be uncertain

Symptomatic presentation:

A wide variety of cardiac and non-cardiac conditions, common symptoms include:

- Dyspnoea
- Palpitations
- Chest pain/discomfort
- Dizziness/syncope
- Fatigue

Rarer symptoms include:

- Polyuria (release of atrial natriuretic peptide during episodes of AF)
- Loss of consciousness

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

History

Assess for the following:

Symptoms:

- Palpitations – establish onset and duration, frequency, pattern, speed
- Chest pain
- Breathlessness
- Presyncope/syncope
- Fatigue
- Confusion
- Flashes
- Nausea
- Sweating
- Reduced exercise capacity

Precipitation factors, such as:

- Stimulants e.g. tobacco, caffeine, alcohol
- Medication
- Exercise

History of:

- Arrhythmia
- Cardiac disease or previous cardiac surgery
- Thyroid disease
- Peripheral vascular disease
- Cerebrovascular accident
- Presence of risk factors for cardiac disease, such as: smoking, diabetes mellitus, hypertension, hyperlipidemia, previous rheumatic fever, alcohol abuse, family history e.g. premature coronary disease, sudden cardiac death
- Other symptoms of cardiac disease, including: orthopnoea, paroxysmal nocturnal dyspnoea, nocturia, peripheral oedema, flu-like symptoms – consider myocarditis or pericarditis

Medications including:

- Digoxin
- Pro-arrhythmogenic medication
- Levothyroxine
- Inhaled bronchodilators
- Antidepressants

Physical Examination

Assess pulse both at rest and on exertion

Check BP

Look for signs of:

- Hypoxia
- Cardiac failure
- Thromboembolism
- Valvular heart disease
- Coronary heart disease
- Anaemia
- Cyanosis
- Peripheral oedema
- Stigmata of endocarditis
- Thyrotoxicosis
- Alcoholic liver disease

Electrocardiogram (ECG)

- Should be performed in all patients, whether symptomatic or not, in whom AF is suspected because an irregular pulse has been detected
- A typical ECG trace for AF would include:
 - No distinct p-waves visible
 - Variable and completely irregular baseline – best seen in V1
 - Irregularly-spaced narrow QRS complexes – unless patient has a bundle branch block
 - Rate usually over 100bpm but may be slower, particularly in the elderly. Less commonly, the rate may be normal. A small minority may present with a rate over 160bpm
- In patients with permanent ventricular pacing, diagnosis may require temporary pacemaker inhibition in order to visualise AF activity
- A rapid, irregular, sustained, wide QRS complex tachycardia could suggest AF with conduction via an accessory pathway
- The ventricular response in AF depends on many things, including:
 - Atrioventricular (AV) nodal properties
 - The level of vagal and sympathetic tone
- Drugs that affect AV nodal conduction such as beta blockers, non-dihydropyridine calcium channel blockers, digoxin
- The 12-lead ECG should be inspected for signs of structural heart disease, including:
 - Acute or old myocardial infarction
 - Left ventricular (LV) hypertrophy
 - Bundle branch block
 - Ventricular pre-excitation
- Consider advice and guidance/Consultant Connect for any queries about ECG findings.

Back to
pathway

Non-AF arrhythmia identified

These include:

- Atrial tachycardias
- Supraventricular tachycardias
- Atrial extrasystoles
- Ventricular ectopic beats

In each case, consider whether a cardiology referral is required or not

Consider differential diagnoses

The following may present with rapid irregular pulse and mimic AF:

- Atrial tachycardias
- Atrial flutter - All cardioembolic stroke risk information for AF is true of atrial flutter, and prompt assessment and intervention as appropriate is still important
- Supraventricular tachycardias

Differential diagnoses of palpitations also include:

- Atrial extrasystoles
- Ventricular ectopic beats
- Sinus tachycardia

An ECG recording during the arrhythmia will usually differentiate the common diagnosis of AF from other rare supraventricular rhythms, or the common occurrence of ventricular extrasystoles.

Consider ambulatory monitoring

- When benign causes for AF not identified on ECG (e.g. multiple ectopics) or clinical suspicion of paroxysmal AF
- In patients with suspected paroxysmal AF undetected by standard ECG recording, obtain by direct access request, where available:
- A 24-hour ambulatory ECG monitor in those with suspected asymptomatic episodes or symptomatic episodes less than 24 hours apart

If direct access not available or if episodes are more than 24 hours apart, refer patient to general cardiology for appropriate investigation

Paroxysmal AF

- Self terminating, usually within 48 hours
- **Referral to a cardiologist for this patient group is recommended - to exclude underlying ischemic 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. fleicanide) 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

Where clinical suspicion of AF is low reassure and advise asymptomatic patients

- **Reassure and advise patient that:**
- Palpitations alone with no history suggestive of heart disease and a normal ECG unlikely to represent a serious problem.
- Treatment to reduce risk is rarely needed and is usually given predominantly for symptomatic benefit.
- Provide safety netting advice.