

1. Patients presenting to primary care

History suggestive of arrhythmia, palpitation, tachycardia (some transient episodes of chest pain, sweating or shortness of breath).
Dizzy spells
Transient loss of consciousness (LOC)
Irregular pulse (**feel the pulse of all patients**)

Arrhythmia may or may not be present at time of consultation

In all cases obtain baseline 12 lead ECG

If ECG shows arrhythmia – treat and/or refer as appropriate according to specific arrhythmia (see section 4 below). Give copy of ECG to patient

- o If ECG normal & symptoms transient/intermittent – consider ECG arrhythmia monitoring: ambulatory ECG, event recorders, Implantable loop recorder (depending on frequency and severity of episodes) refer as necessary
- o If unable to interpret ECG seek specialist help for ECG interpretation (consider need for specific training of individual professionals)

NB. All cases of transient LOC should be referred for specialist assessment

2. Patients presenting to emergency services

Arrhythmia usually present – Obtain 12 Lead ECG

- o tachycardia / bradycardia – if clinically stable transfer to hospital for investigation & treatment
- o cardiac arrest – resuscitate & transfer to hospital for investigation & treatment

3. Screening

- o Incidental ECG findings
 - o Wolff Parkinson White syndrome, Long QT, Brugada, Left Ventricular Hypertrophy, etc – refer for specialist assessment
 - o Atrial fibrillation – if asymptomatic consider formal anticoagulation & echocardiogram.
- o ECG screening – planned screening to detect atrial fibrillation (if irregular pulse detected).
- o Family screening following sudden death – need specialist input, cardiologist, pathologist, genetics service

References

Commissioning for Stroke Prevention in Primary Care The Role of Atrial Fibrillation. NHS Improvement (2009)
NICE Guidance for Atrial Fibrillation C36 (2006)
NICE Atrial Fibrillation - dabigatran etexilate Appraisal Consultation Document (2011)
European Society of Cardiology Guidelines for the management of Atrial Fibrillation (2010) European Heart Journal doi:10.1093/eurheartj/ehq278



Author: Dr Jon Creamer, Network Cardiac Clinical Lead for Cardiac / Consultant Cardiologist

4. Treatment of Specific Arrhythmias (after ECG diagnosis)

Atrial Fibrillation

The 2 main forms of treatment are rate control and rhythm control:

Rate control preferred as initial treatment for patients who have been in atrial fibrillation for a prolonged or indeterminate period. Use digoxin, beta blockers, verapamil or diltiazem, alone or in combination. Monitoring by clinical assessment or with ambulatory ECG as necessary.

Attempts to restore sinus rhythm should be considered in patients with recent onset of atrial fibrillation with no obvious irreversible underlying cause. Refer to cardiologist for cardioversion and / or anti-arrhythmic drug therapy

Patients who remain symptomatic despite appropriate drug treatment, should be considered for ablation therapy –

- o Pulmonary vein isolation ± atrial ablation for paroxysmal AF
- o AV node ablation and pacemaker implantation for chronic AF with inadequate rate control

All patients with atrial fibrillation should be considered for formal anticoagulation (as indicated in NICE AF guidelines)

All patients should be referred to a cardiac rhythm specialist and be offered the option of potentially curative ablation therapy.

(NB. Patients with atrial flutter should be considered for anti-coagulation as for patients with atrial fibrillation)

Ventricular Tachycardias

All patients presenting with ventricular tachycardia should be referred to a cardiologist for full assessment of underlying structural heart disease and for consideration of ICD or ablation therapy

Ventricular Fibrillation

After successful resuscitation, which is more likely given the advances in efficiency and treatments given by the ambulance services, all patients should be referred to a cardiologist for full assessment of underlying structural heart disease and for consideration of ICD therapy.

Sinus node disease (sick sinus syndrome) & AV Block

- All patients should be referred to a cardiologist for consideration of permanent pacemaker implantation.
- Patients requiring permanent pacemakers/ ICDs should be paced using modes providing optimum rhythm correction (regardless of age)
- Patients with concomitant LV impairment should be assessed for CRT (see Heart Failure Guidelines)