



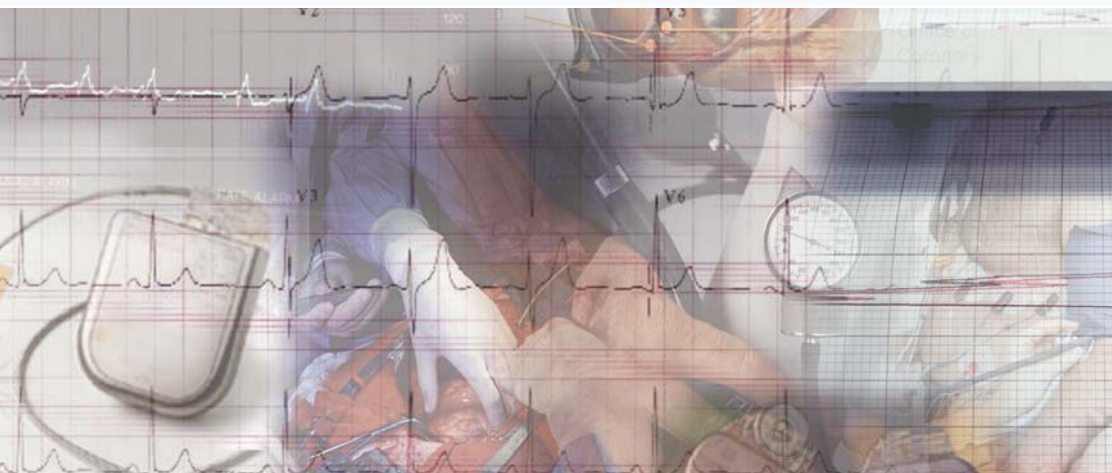
Arrhythmia Alliance

The Heart Rhythm Charity

Promoting better understanding, diagnosis, treatment and quality of life for individuals with cardiac arrhythmias

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Guidelines on how to establish Rapid Access Clinics



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Introduction

The NSF for Arrhythmias represents many challenges because of the complexity and diversity of heart rhythm care. Amongst the challenges are ways of establishing more equal and more rapid access to heart rhythm care. Rapid access clinics have been a success for the NSF for CHD where they have dealt with chest pain. However, not all aspects of cardiac care can be provided using an adapted Rapid Access Chest Pain Clinic, (RACPC) model. Many RACPCs function well with a specialist nurse or SAS doctor running them, with distant supervision from a named consultant, or a consultant on-call. The decision-making process usually centres on demonstrating exercise or stress-induced myocardial ischaemia and relating this to a patient's presenting symptoms.

In many cases this function can be performed with conventional treadmill exercise-testing, after a simple history has assessed a patient for the presence of angina-at-rest, and examination has excluded other causes, e.g. aortic stenosis. In contrast, assessing patients for heart rhythm disorders is dependent on a wider variety of symptoms and presentations.

Heart rhythm patients may present with; palpitations, dizziness, blackouts, chest pain, breathlessness, minimal or no symptoms. The latter may be the case with chronic atrial fibrillation, (AF). Whereas millions of people have coronary artery disease and no symptoms, and do not come to medical attention, new guidelines stemming from the NICE AF Guideline will require action in asymptomatic AF. This is because 1:3 patients admitted to hospital in the UK with a stroke is found to be in AF, but only 20% of eligible patients with AF are being anticoagulated appropriately in the NHS. There is most surely a link, and strokes could be avoided with better care for AF. Thirty

points will be awarded to GPs for detecting AF through the Quality Outcomes Framework under their new contract, and this is worth £30m. GPs will detect a lot of AF, and require rapid effective systems for sorting it out.

All Arrhythmias are not the same

The type of heart rhythm problem should determine the type of access, the speed of access, and the characteristics of the evaluating clinical staff. Patients with unexplained blackouts cannot be evaluated by clinicians who are not trained and experienced in the evaluation of patients with unexplained blackouts, and gathering this experience takes years, because these clinicians need to master the management algorithms of syncope, epilepsy, psychogenic blackouts and falls. The latter cost the NHS over £1bn per annum, and data from Falls Clinics show that 30% or more of fallers actually have syncope prior to a fall. Since this age group is elderly, intermittent conduction tissue disease is likely to be the cause of their syncope. They need pacing before the next fall/hip fracture. As we achieve less than half the pacing rate of Western Europe, (430/million versus >900/million), it's tempting to point to this relative lack of pacing access as an important cause of the NHS's vast falls expenditure. It cannot make sense to continue to spend vast amounts on falls, rather than spending more money on pacing services. The process needs re-engineering to pace appropriate patients before their next fall/hip fracture.

In contrast to Blackouts Clinics, AF clinics could quite easily lend themselves to management by specialist nurses working to protocol. In the case of Palpitations Clinics, many GPs would find these very useful, and a relatively simple triage would show where symptoms were due to simple atrial or ventricular ectopy, there was no evidence of a primary electrical disease, (e.g. Long QT Syndrome), and no evidence of structural heart disease, e.g. previous Q-wave MI.

Therefore, taking all these considerations into account, it seems reasonable to advocate 3 Rapid Access Clinic settings:-


- Rapid Access Palpitations Clinics (RAPC)
- Rapid Access AF Clinics (RAAFC)
- Rapid Access Blackouts Clinics (RABC)

The NSF for Arrhythmias identifies another important area for improved access, and this is the Familial & Genetic Arrhythmia Clinic. This is likely to be run in a Regional Centre, and examples already exist in London, Liverpool and Manchester.

For these patients access should be speedy, but it is probably more important that such clinics exist, that they have the necessary multidisciplinary expertise and resources, and that they have strong links with the Rapid Access Clinics. Where a patient is symptomatic and attends one of the Rapid Access Clinics, recognition of a familial or genetic arrhythmia is part of the triage process, and onward referral needs to be swift.

Where patients are asymptomatic, they will usually be contacted directly by the Familial & Genetic Arrhythmia Clinic staff because of symptoms or tragic death in a relative.

However, to keep these clinics effective, they are likely to be better focussing on symptomatic referrals or family screening rather than general widespread screening in asymptomatic people with no family history of sudden cardiac arrest or familial or genetic arrhythmia condition.



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Palpitations

Awareness of Heart Beat Prompting Seeking Medical Advice

Assess for HIGH RISK FACTORS:

- 1) Presence of pre existing cardiac disease (Congenital H.D., Previous M.I. / CABG / Other major cardiac intervention)
- 2) History or signs of heart failure
- 3) History of syncope / pre-syncope
- 4) Family history of sudden cardiac death in under 40s
- 5) Exertional cardiac symptoms
- 6) Suspected drug related phenomenon
- 7) Resting ECG abnormality - Abnormalities that are not considered high risk if no other risk factors are present:
 - a) Right or left bundle branch block or
 - b) 1° AV block

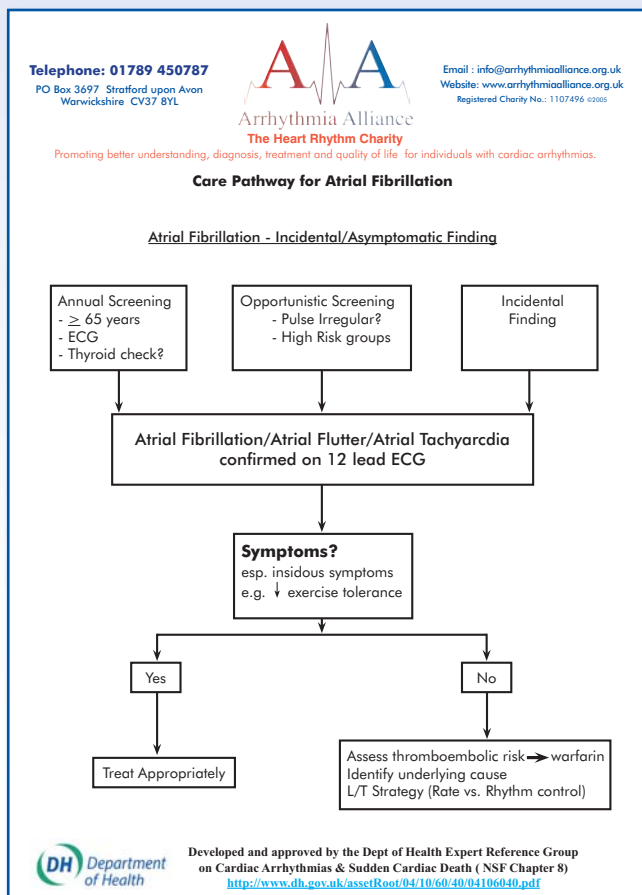
Developed and approved by the Dept of Health Expert Reference Group
on Cardiac Arrhythmias & Sudden Cardiac Death (NSF Chapter 8)
<http://www.dh.gov.uk/assetRoot/04/10/60/40/04106040.pdf>



Such screening would require massive resources, although programmes do exist, e.g. in Italy where all schoolchildren need to be screened before taking part in school sport.

Rapid Access Palpitation Clinics (RAPC)

Many patients in primary care have troublesome palpitations but are unlikely to have an important arrhythmia or arrhythmia substrate. Nevertheless, they occupy the time of GPs, and GPs are “fundholders”, (strictly generic sense, of course!).



It follows that they will be anxious to achieve an early answer to important questions, and these are twofold:-

- Is there any reason to believe that this patient's symptoms might indicate a dangerous arrhythmia?
- Can you reassure the patient and close the episode, (without further uncertainty, and therefore, cost)?

In the palpitations clinic, therefore, protocols will focus on assessment of risk by history, examination, resting 12-Lead ECG, and, in many cases, an echocardiogram. This could be effectively undertaken by specialist nurses and cardiac technicians working with a supervising junior doctor or SAS doctor. The latter would be better, as an SpR would need direct consultant supervision of their decisions. A named consultant should be in overall charge of the clinic, the algorithms being used, quality-control, and clinical governance, as a clinic director.

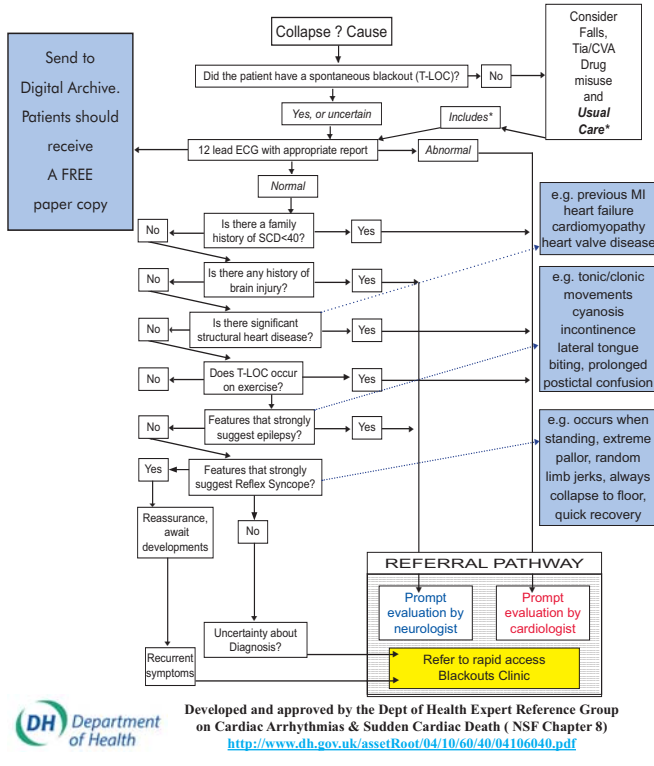
However, they might not need to be present in the clinic, provided time is set aside in job-planning for discussing cases. Alternatively, such clinics could be scheduled alongside existing clinics, which maximises efficiency. Examples exist of effective systems, such as the clinic in West London. Examples exist of device clinics running alongside conventional consultant-lead outpatient clinics and run by technicians and nurses. Rapid Access Clinics could run in a similar way.

Rapid Access AF Clinics (RAAFC)

RAAFCs will be needed by GPs to support the process of better identification and management of AF in the community. AF affects 500,000 people in the UK, and the incidence is rising by about 5% per annum with an ageing population. The objectives of a Rapid Access AF Clinic will be to:-

- Identify any AF patient with a treatable underlying cause, e.g. thyroid dysfunction
- Separate symptomatic from genuinely asymptomatic AF patients
- Separate paroxysmal AF from persistent and chronic AF patients
- Identify AF patients who should be anticoagulated according to the established evidence-based criteria

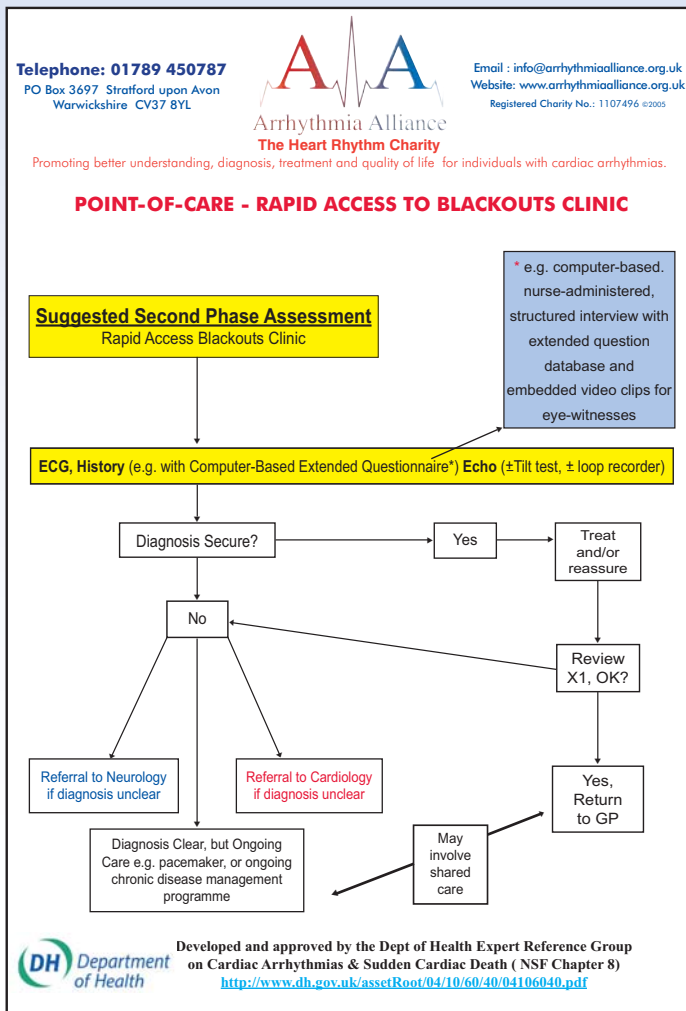
POINT-OF-CARE A&E



- Decide upon a strategy of rate versus rhythm control for persistent/chronic AF
- Organise nurse-lead cardioversion using best-practice techniques
- Review patients to assess medical compliance, side-effects and secondary effects/complications of AF or treatment, e.g. the presence of heart failure
- Assess AF patients for onward referral to an electrophysiologist for physical therapies if drug therapies are not working. These include device therapy, catheter ablation or a combination of both.

AF clinics will probably be relatively simple to set up and run according to protocols using specialist nurses, probably in primary care settings once larger primary care centres begin to open. However, they must retain strong links with local secondary and tertiary centres to ensure that patients with continuing problems get assessed early for physical therapies and do not get lost in the system.

Patients lost in the system typically represent the continuing burden of unplanned admissions to hospital with AF in the UK. Even without counting stroke patients who are admitted because of untreated AF, extrapolation from US data suggests that the UK has approximately 575,000 AF related



admissions per annum, and 94,000 AF-caused admission per annum. AF also consumes 1% of the NHS annual budget. AF clinics can reduce morbidity, mortality and costs.

Rapid Access Blackout Clinics (RABC)

These are not the same as Syncope Clinics.

An effective approach to patients with blackouts requires a multidisciplinary team. Blackouts are caused by epilepsy, syncope and psychogenic causes. Additionally, many patients are admitted with an apparent fall, but in fact this apparent fall was precipitated by syncope, and often this goes unreported and unrecognised. To establish a Syncope Clinic ensures that a large proportion of patients in the iagnostic “grey area”, who do not have simple fainting or obvious generalised epilepsy will not be evaluated by a multidisciplinary team lead by consultants from the key disciplines. Rather, patients assumed to have syncope will be referred.

Syncope is caused by transient global impairment of cerebral perfusion, and it is not synonymous with transient loss of consciousness of unknown cause. Patients referred to syncope clinics are either assumed to have had transient loss of consciousness due to global impairment of cerebral perfusion, (i.e. a cardiovascular cause of blackout), or they are referred there because it is not understood that syncope is not the same as a blackout. This is nothing if not confusing. Blackout is synonymous with transient loss of consciousness.

The European Federation of Neurological Societies Working Group on Terminology calls this “T-LOC”.

These disciplines that need to be involved in RABCs are:-

- Neurology, (and epileptology where needed)
- Cardiology, (and electrophysiology where needed)
- Psychology, (and neuropsychology where needed)
- Care of the elderly

In addition, in planning and managing such clinics, advice and consultation are needed with colleagues in Emergency Medicine, Acute Medicine and Primary Care, because these disciplines “own” the problem of blackouts, and want to know what best to do with blackout patients.

It is important to recognise the limitations of RABCs clinics. Whereas RAAFCs can identify AF with great confidence, and RAPCs can diagnose palpitations due to ventricular ectopy in the absence of structural heart disease with some certainty, RABCs provide a triage stage. Some patients with simple fainting may be discharged back to their own GP to let time pass with a presumed diagnosis. Others may be found to have a clear electrophysiological diagnosis, such as WPW or the LongQT Syndrome and will need urgent onward referral, and some will be thought to have generalised epilepsy and need neurological review at an early stage. However, a lot of patients coming through the RABC will not be diagnosed, they will be given a working diagnosis and channelled more rapidly to the appropriate specialist for further assessment and care. The reason for establishing this triage layer is simple. About 1% of the population have a diagnosis of epilepsy, but evidence suggests that 30% of adults and 40% of children in the UK are misdiagnosed. This represents a major public health disaster, since up to 20,000 patients in the UK are wrongly diagnosed. Many of these will receive a "trial of therapy" with anticonvulsants.

This serves only to cement a misdiagnosis, since many blackouts are isolated, and even true epileptic seizures may only occur rarely in patients who have a relatively low seizure-threshold. Epileptologists recommend that epilepsy should be diagnosed in patients with recurrent seizures, not a single episode. However, in practice many doctors are tempted to treat epilepsy after a first or second seizure. This is because of the important implications of epilepsy for education, relationships, employment, driving, insurance and childbearing. Such precipitous resort to medication is unnecessary, since it has no effect on prognosis, but may substantially affect lives.

Many doctors assume that syncope can be diagnosed with a 24hr tape and a tilt-test, and that epilepsy can be diagnosed with an EEG and a CT Scan. In fact this is far from the truth. Holter monitoring has a yield of <1% in syncope, and tilt-testing in "all-comers" has a yield of about 20%. This is enhanced little with drug-provocation, and there is a false-positive rate of 10% in controls. The EEG is not diagnostic of epilepsy, especially in the over 35s. An EEG is used by epileptologists to define an epilepsy syndrome, once the clinical diagnosis of epilepsy has been made. Therefore a diagnosis of epilepsy, and a diagnosis of syncope, depend on the quality of clinical assessment, supported by simple bedside tests, such as the 12-Lead ECG.

For this reason, clinicians staffing a RABC must be trained and experienced in such clinical assessments. Supervision and leadership should be by a multi-disciplinary team.

RABCs provide patients and doctors with a triage resource which should be made readily available, and avoids the difficulties associated within expert clinical assessment, poor diagnostic tests and a high rate of misdiagnosis. They will have a significant impact on triaging patients with blackouts of uncertain cause if correctly configured and well-directed.

Useful Websites

Suggested care pathways / job descriptions / patient information booklets and business case templates for Pacemaker & ICD clinics available from

www.arrhythmialliance.org.uk



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