CHANGE PAGE

Some patients with paroxysmal atrial fibrillation should carry flecainide or propafenone to self treat

A John Camm, Irina Savelieva

St George's, University of London,
London SW17 0RE

Correspondence to: A J Camm,
Division of Cardiac and Vascular
Sciences, St George's, University
of London, London SW17 0RE
jcam@sgul.ac.uk

Competing interests: None declared.

BMJ 2007;334:637

doi: 10.1136/bmj.39143.720602.BE

Change Page aims to alert clinicians to the immediate need for a change in practice to make it consistent with current evidence. The change must be implementable and must offer therapeutic or diagnostic advantage for a reasonably common clinical problem. Compelling and robust evidence must underpin the proposal for change.

References are on bmj.com.

Series editor: Joe Collier (change@bmj.com), professor of medicines policy, St George's Hospital and Medical School, London. Anyone wishing to propose a change in clinical practice should discuss the proposal with Joe Collier at an early stage.

The clinical problem

Atrial fibrillation affects up to 1.5% of the population in the United Kingdom,¹ about 200 000 of whom have recurrent episodes. Although such episodes often resolve spontaneously and within 48 hours,² patients may be distressed by symptoms of palpitations, dizziness, fatigue, or chest pain. Such attacks generally respond to antiarrhythmic agents (such as a single intravenous dose of propafenone or flecainide),³ which are usually administered under monitoring in hospital.

Here we propose that patients could self treat with oral propafenone or flecainide, using a "pill in the pocket" approach (thereby not needing to go to hospital), as suggested in recent national (National Institute for Health and Clinical Excellence) and international guidelines.^{4,5} For details of our methods, see the box on bmj.com.

The evidence for change

A series of 212 consecutive cases explored this strategy of self treatment and showed that patients who achieved safe cardioversion in response to oral propafenone under close supervision in the hospital also responded well when self treating outside hospital.⁶ In a key feasibility study, a selected cohort of 210 patients who had been successfully treated in hospital with either oral flecainide or propafenone for paroxysmal atrial fibrillation were given a supply of the relevant drug and asked to take a single oral dose within five minutes of noticing palpitations.⁷ Mildly symptomatic patients with relatively rare episodes (<12 year) of atrial fibrillation of distinct onset were selected only if their arrhythmia had begun <48 hours previously and if they had a mean heart rate >70 beats/min and systolic blood pressure >100 mm Hg. Patients with serious underlying heart disease, those receiving prophylactic antiarrhythmia treatment, and those with electrolyte disorders were excluded. These 210 patients were then compared with their own historical control data. Although the total number of episodes of atrial fibrillation for the group did not fall significantly compared with the previous period (54.5 v 59.8 episodes a month), the total number of visits to emergency depart-

ments fell to 4.9 a month (from 45.6 visits a month during the previous period ($P<0.001$)). Admissions to hospital each month during the follow-up period also fell significantly (15.0 v 1.6, $P<0.001$).⁷

Barriers to change

Neither propafenone nor flecainide is licensed for patients to use for self treating single attacks. Self treatment can be extended to those with mild cardiovascular disease—such as modest hypertension without left ventricular hypertrophy—or well controlled ischaemic heart disease without prior myocardial infarction. However, no patient should be taking a prophylactic antiarrhythmic, and long term anticoagulation will be needed if the CHADS score is 2 or more (C=congestive cardiac failure, 1 point; H=hypertension, 1; A=angina, 1; D=diabetes, 1; S=stroke, 2). The decision on whether to offer this treatment will rest with the cardiac specialist.

The evidence base for this type of treatment in a hospital setting is substantial, but only one study, which used historical controls, documents the use of the technique outside hospital.

How should we change our practice?

- Selected patients with paroxysmal atrial fibrillation should be offered supplies of a single oral dose of either flecainide (300 mg) or propafenone (600 mg), to carry for self treatment if palpitations develop.
- Suitable patients include those with no underlying structural heart disease who experience symptoms from episodic atrial fibrillation and in whom such episodes are infrequent (up to three to four times a year), last for at least six hours, and are not associated with haemodynamic compromise; they should have a systolic blood pressure >100 mm Hg and a resting heart rate >70 beats/min; and they should be able to understand how and when to take the medication.
- The drug chosen should be the one that has previously and successfully treated that patient under hospital supervision. Thus either flecainide or propafenone must already be part of the hospital's protocol for the emergency treatment of paroxysmal atrial fibrillation.
- Treatment should be started if palpitations seem to persist beyond about 30 minutes. After taking the pill, the patient should rest seated or supine until the palpitations stop or for up to four hours. If the heart rate noticeably quickens or if dizziness or blackouts occur, the patient should go to hospital urgently.
- If the self treatment fails, other strategies such as antiarrhythmic prophylaxis or catheter ablation techniques must be considered and the self treatment approach abandoned.

KEY POINTS

- Currently, patients without severe heart disease who have infrequent paroxysmal atrial fibrillation require hospital intervention for symptomatic episodes
- For selected patients, self treatment strategy is feasible, safe, and reduces hospital admissions and emergency department visits
- Eligible patients should not have a history of left ventricular dysfunction and should not have valvular or ischaemic heart disease, and they should have a history of infrequent symptomatic episodes of paroxysmal atrial fibrillation
- They should first be treated for symptoms at a specialist hospital unit, using oral flecainide or propafenone; if successful, the drug can be carried by the patient for self treatment when symptoms occur