1 Guideline title

Clinical guideline for the management of atrial fibrillation

1.1 Short title

Atrial fibrillation

2 Background

a) The National Institute for Clinical Excellence (‘NICE’ or ‘the Institute’) has commissioned the National Collaborating Centre for Chronic Conditions to develop a clinical guideline on atrial fibrillation for use in the NHS in England and Wales. This follows referral of the topic by the Department of Health and Welsh Assembly Government (see Appendix). The guideline will provide recommendations for good practice that are based on the best available evidence of clinical and cost effectiveness.

b) The Institute’s clinical guidelines will support the implementation of National Service Frameworks (NSFs) in those aspects of care where a Framework has been published. The statements in each NSF reflect the evidence that was used at the time the Framework was prepared. The clinical guidelines and technology appraisals published by the Institute after an NSF has been issued will have the effect of updating the Framework.

3 Clinical need for the guideline

a) Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia. The prevalence of AF increases with age and is the most common arrhythmia causing hospitalisation. In a UK cohort, the prevalence of
AF was 8 per 1000 in males, and 5 per 1000 in females, with an incidence of 0.9 new cases per 1000 patient years in males, and 0.2 new cases per 1000 patient years in females. An increased incidence is associated with age, gender and the presence of other common diseases, including hypertension, heart failure, ischaemic heart disease, diabetes and peripheral artery disease.

b) AF is associated with a substantial mortality, and with morbidity and hospitalisation from stroke, heart failure, thromboembolism and impaired cognitive function. From a large follow-up study over 40 years, AF was associated with a 1.5 fold (male) to 1.9 fold (female) increased risk of mortality after adjustment for pre-existing cardiovascular disease.

c) As a common arrhythmia and a cause of substantial morbidity and mortality, AF has considerable implications for healthcare expenditure. Recently, the total cost of AF to the NHS in 2000 (using conservative 1995 prevalence figures) has been calculated to be £459 million or 0.97% of total expenditure. The cost of drug treatment for the year 2000 was estimated to be £69.5 million (including costs for anticoagulation clinic visits) and a further £271.6 million was spent on hospital admissions. These figures do not assume costs for hospitalisations where AF is a secondary diagnosis, or costs of nursing care.

d) A clinical need for the guideline is justified by the wide variation in management and disagreement amongst UK consultants regarding the best treatment strategies. Furthermore, many patients with AF possess very limited knowledge of AF, its consequences and therapy.

4 The guideline

a) The guideline development process is described in detail in two publications which are available from the NICE website (see ‘Further information’). The Guideline Development Process – An overview for Atrial fibrillation draft scope for consultation 8 April – 10 May 2004
Stakeholders, the public and the NHS describes how organisations can become involved in the development of a guideline. The Guideline Development Methods – Information for National Collaborating Centres and Guideline Developers provides advice on the technical aspects of guideline development.

b) This document is the scope. It defines exactly what this guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health and Welsh Assembly Government (see Appendix).

c) The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered

a) People with new onset or acute AF.

b) People with chronic AF, including paroxysmal (recurrent), persistent and permanent/sustained AF.

c) People with AF following cardiac surgery.

4.1.2 Groups that will not be covered

a) People under age 16 years.

4.2 Healthcare setting

Primary and secondary NHS healthcare settings, including referral to tertiary care.

4.3 Clinical management

Objectives of management are dependant upon clinical subtype of AF. AF is considered recurrent when a patient develops two or more episodes. These episodes may be paroxysmal if they terminate spontaneously (defined by consensus as 7 days), or persistent if the

Atrial fibrillation draft scope for consultation 8 April – 10 May 2004
arrhythmia requires electrical or pharmacological cardioversion for termination. Successful termination of AF does not alter the classification of persistent AF in these patients. Longstanding AF (defined as more than 1 year) not successfully terminated by cardioversion, or when cardioversion is not pursued, is classified as permanent.

Treatment of acute, sudden onset of AF (with consideration of haemodynamic stability) will be distinguished from chronic (paroxysmal/recurrent, persistent and permanent) AF. Management of paroxysmal and persistent AF requires control of the rhythm, whilst in permanent AF, the management is rate control.

4.3.1 The guideline will include recommendations in the following areas.
   a) Identification of atrial fibrillation. The guideline will not cover general population screening but will include opportunistic case find, augmented by risk assessment (mainly stroke and thromboembolic risk stratification) in high-risk patients.

   b) Diagnostic and assessment criteria, including the role of electrocardiogram (ECG) (single and 12-lead), 24-hour ECG (or Cardiomemo), echocardiogram, chest X-ray and appropriate haematological and biochemical testing.

   c) Treatment (as defined for clinical subgroups of paroxysmal, persistent and permanent AF) to include the following.
      
      • **Prophylactic antithrombotic treatment** for the prevention of stroke and thromboembolism, to include anti-platelet and anticoagulation therapy as they specifically relate to AF and taking into account the following.
        
        — Risk stratification for thromboprophylaxis.
        — Self-management or near patient testing.
• **Rhythm control** including pharmacological (oral and IV) electrical cardioversion and rhythm self-management (‘pill in the pocket’)

• Pharmacological **rate control** (excluding non-pharmacological pacing and ablation, see below) pertaining to monotherapy and combination therapy.

• Efficacy of rate versus rhythm control.

• Selection of patients for referral to specialist services pertaining to non-pharmacological rate control (pacing and catheter ablation) and electrophysiological studies.

d) The review and monitoring of AF pertaining to the following.

• The benefits and harms of pharmacological and antithrombotic treatments (e.g. treatment side effects, and when to stop drug therapy).

• Post-cardioversion pharmacological therapy following cardioversion.

• Patients who fail to respond to medical therapy.

e) Note that guideline recommendations will normally fall within licensed indications; exceptionally, and only where clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use the Summary of Product characteristics to inform their decisions for individual patients.

4.3.2 The following interventions/management will not be included in the guideline.

a) Radical therapies that do not form common clinical management will not be addressed, including:
implantable atrial defibrillator (IADs) as the evidence pertains to a selective group of patients and further clinical trials are required.

- MAZE procedure and other arrhythmia surgery, as well as other novel/experimental non-pharmacological techniques

- novel/experimental pharmaceutical anti-arrhythmic agents.

b) Co-morbidities in atrial fibrillation (except where treatment will differ from treatment of these co-morbidities in patients without AF).

c) Generic health problems where the care for people with AF disease does not differ from that of the general population (e.g. depression).

4.4 Status

4.4.1 Scope

a) This is the first draft of the Scope. The consultation period will run from 8th April 2004 to 10th May 2004.

b) NICE is in the process of developing the guidance below. The guideline will signpost these technology appraisals and will consider their role in the treatment of AF.

Implantable cardioverter defibrillators (ICDs) for the treatment of arrhythmias – review of Guidance no. 11. Expected date of publication July 2004

Stroke Prevention: Ximelagatran in patients with stroke and other thromboembolic complications associated with fibrillation. Expected date of publication February 2006

4.4.2 Guideline

The development of the guideline recommendations will begin in August 2004.
5 Further information

Information on the guideline development process is provided in:

- *The Guideline Development Process – An overview for Stakeholders, the public and the NHS*

- *Guideline Development Methods – Information for National Collaborating Centres and Guideline Developers*

These booklets are available as PDF files from the NICE website (www.nice.org.uk). Information on the progress of the guideline will also be available from the website.
Appendix – Referral from the Department of Health and Welsh Assembly Government

The Department of Health and Welsh Assembly Government asked the Institute:

‘To develop a guideline on the appropriate treatment of atrial fibrillation (AF). This should include:

• Identification of patients with AF and appropriate risk assessment tools.
• Diagnosis and assessment.

• Appropriate treatment including:

  — antithrombotic treatment and appropriate use of anti-platelet and anti-coagulation therapy, including advice on potential for management in primary care and self management using near patient testing devices
  
  — therapy to control rate of AF
  
  — medical and electrical cardioversion to control rhythm
  
  — selection of patients for referral to more specialist services, e.g. electrophysiological studies, pacing, catheter ablation and, if there is sufficient evidence, the role of ICDs.

• Review and monitoring of condition.’