Atrial Fibrillation, Chronic - Antithrombotic Treatment
- OBSOLETE

Clinical practice guidelines serve as an educational reference, and do not supersede the clinical judgment of the treating physician with respect to appropriate and necessary care for an individual patient. In the event that HMSA policies differ from the clinical practice guidelines, for benefit purposes, HMSA policies shall supersede the clinical practice guidelines.

Guideline summary

Administer antithrombotic therapy (oral anticoagulation or aspirin) to all patients with AF except when contraindicated

Clinical trials have shown benefit in Warfarin (Coumadin) therapy in the treatment of AF

Aspirin therapy is superior to placebo but less effective than full anticoagulant therapy. A 325 mg dose of aspirin per day is recommended in patients unable to take oral anticoagulants.

Older patients (³ 60 years old) and those with significant heart disease have the greatest benefit from anticoagulation therapy

Therapeutic goal is international normalized ratio (INR) between 2 and 3

Introduction

Clinical trials have shown benefit in adjusted-dose warfarin (Coumadin) therapy in the treatment of atrial fibrillation. Meta-analysis and subset analysis have further defined the patients who can benefit the most from anticoagulation therapy. For the total population, anticoagulation therapy reduces the relative risk of stroke by 62 percent. For primary prevention, the absolute risk reduction for all strokes was 2.7 percent per year and numbers needed to treat was 37. For secondary prevention, it was 8.4 percent and 12, respectively. Although intracranial bleeding increased in patients receiving anticoagulation therapy, the increased incidence did not reach statistical significance.

Aspirin therapy is effective in reducing strokes in patients with atrial fibrillation, but the relative risk reduction is in the range of 22 percent with no significant reduction in overall mortality. Aspirin therapy is superior to placebo but clearly not as effective as full anticoagulation therapy. Combining aspirin with oral anticoagulants have not shown improved efficacy over anticoagulants alone and may increase risks of hemorrhage, particularly in the elderly patient. In the setting of preventing myocardial ischemia in patients undergoing percutaneous coronary intervention consensus for the most important agent is the thienopyridine clopidogrel. The addition of aspirin contributes more risk than benefit.
The benefits for anticoagulation are not equal for all patients with atrial fibrillation. Older patients and those with significant heart disease have the highest risk for strokes and have the greatest benefit from anticoagulation therapy. Warfarin anticoagulation therapy is not clearly indicated for all patients with atrial fibrillation. Various factors, including fall risk, require consideration in recommending that a patient receive anticoagulation therapy. In addition to the strict medical criteria, issues of adherence to therapy, lifestyle, philosophy and personal preference may play a role in the decision to initiate therapy.

**Assessment**

Patients considering therapy should have a comprehensive history examination with particular emphasis on the heart and cardiovascular system. Based on this information, the patient can be assigned to categories that stratify the risks and benefits of anticoagulation therapy. Patients with rheumatic heart disease and valve replacement almost universally need anticoagulation therapy. Patients who have a history of prior ischemic stroke, transient ischemic attacks (TIA), mitral stenosis, or prosthetic heart valve are in the high risk group. Patients with more than one risk factor have significant risk. The decision to treat them or not needs to be weighed against the potential risks.

**Risks of care**

Research studies enroll very select populations based on a willingness to receive treatment and adhere to the research protocol. Treatment of atrial fibrillation in a general population requires careful evaluation of the risks of care beyond the medical management of the medication alone. Patients must be fully informed and willing to cooperate in the management of their anticoagulation therapy. Patients need to avoid alcohol and many over-the-counter medications, adhere to prescribed medication, receive frequent lab testing and commit to years of therapy to avoid significant risk of complications.

**Shared decision-making**

Although the benefits of anticoagulation therapy are clearly established, all patients should understand and be actively involved in their anticoagulation therapy. Once the physician has interpreted the data from the patient’s history, physical examination and diagnostic testing, he or she and the patient should jointly review the findings and come to a decision regarding anticoagulation therapy.

**Clinical management and therapeutic goals**

The physician should set a goal of maintaining the patient’s international normalized ratio (INR) between 2 and 3. During the initiation and adjustment period of therapy, the patient should be monitored frequently to avoid critically high INRs. Once the patient is in the therapeutic range, the patient should be monitored approximately once per month to avoid undetected fluctuations in the prothrombin time. The patient should receive education related to the appropriate use of warfarin, including information about the wide number of drug interactions. Patients should initially be told and subsequently reminded to avoid high-risk activities while on anticoagulation therapy, because such
high-risk activity may potentially result in trauma.

**2006 ACC/AHA/ECS Consensus Recommendation for Oral Anticoagulation**

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Recommendation</th>
</tr>
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<tbody>
<tr>
<td>No risk factors</td>
<td>ASA</td>
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<tr>
<td>High risk factors</td>
<td>Warfarin INR 2.0-3.0</td>
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<tr>
<td>1 moderate risk factor</td>
<td>ASA or Warfarin INR 2.0-3.0</td>
</tr>
<tr>
<td>Any high risk factor or &gt; 1 moderate risk factor</td>
<td>Warfarin INR 2.0-3.0</td>
</tr>
</tbody>
</table>

**High risk factors for stroke:**

- Prior ischemic stroke
- TIA
- *Prosthetic heart valve
- *If mechanical valve, target international normalized ratio (INR) greater than 2.5

**Moderate risk factors for stroke:**

- Age > 75 years
- LV systolic EF < 35 percent
- Heart failure
- Hypertension
- Diabetes

**Less validated or weaker risk factors for stroke:**

- Female gender
- Age 65-74 years
- Coronary artery disease
- Thyrotoxosis
**Antithrombotic Treatment Algorithm**

**Anticoagulation Initiation and Monitoring Algorithm**

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**Sources**


**References**


**Web sites**

[www.acc.org](http://www.acc.org)
[www.americanheart.org](http://www.americanheart.org)

**Guideline review date: July 13, 2010**

<table>
<thead>
<tr>
<th>Rev#:</th>
<th>Date:</th>
<th>Nature of Change:</th>
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<tbody>
<tr>
<td>1.0</td>
<td>07/25/2005</td>
<td>Updated Table 1 2001 ACCP Recommendations to 2004 recommendations.</td>
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<tr>
<td>1.1</td>
<td>07/26/2005</td>
<td>Added second reference that is the source of the 2004 updated information. Changed guideline date from July 13, 2004 to reflect date of approved revisions.</td>
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<tr>
<td>1.2</td>
<td>08/03/2005</td>
<td>Minor edits for consistency</td>
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<tr>
<td>1.3</td>
<td>05/19/2006</td>
<td>In Table 1- updated recommendation for under age 65; corrected last line from &lt;75 years to &gt;75 years</td>
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<tr>
<td>1.4</td>
<td>10/03/2007</td>
<td>Updated 2004 ACCP Consensus Recommendations to 2006.</td>
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<tr>
<td>1.5</td>
<td>10/03/2007</td>
<td>Added &quot;Moderate Risk Factors&quot; and &quot;Less Validated or Weaker Risk Factors&quot;</td>
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</table>
Under "Assessment" section, added the line below after: "Patients who have rheumatic heart disease and valve replacement almost universally need anticoagulation therapy."

Introduction section, last paragraph, last sentence, added "including fall risk." Guideline summary, third bullet, added: "A 325 mg dose of aspirin per day is recommended in patients unable to take oral anticoagulants." Reference section, updated year of pocket guideline and added Reference #3, Sacco.

Replaced both, current algorithm PDFs with updated ones.

Added guideline review date.

Latest Revision: 11/02/2010

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