ACC/AHA/Physician Consortium Clinical Performance Measures for Adults with Nonvalvular Atrial Fibrillation or Atrial Flutter
A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures and the Physician Consortium for Performance Improvement (Writing Committee to Develop Clinical Performance Measures for Atrial Fibrillation)

Writing Committee Members

N. A. Mark Estes III, MD, FAHA, FACC, FHRS Co-Chair
Jonathan L. Halperin, MD, FAHA, FACC, Co-Chair
Hugh Calkins MD FAHA, FACC, Michael D. Ezekowitz, MB, CHB, DPhil, FACC, Paul Gitman MD, MACP, Alan S. Go, MD, Robert L. McNamara, MD, MHS, FACC, Joseph V. Messer, MD, FAHA, MACC, James L. Ritchie, MD, FAHA, FACC, Sam J. W. Romero, MD, MBA, Albert L. Waldo, MD, FAHA, FACC, FHRS, D.
George Wyse, MD, PhD, FAHA, FACC, FHRS
This slide set was adapted from ACC/AHA/Physician Consortium 2008 Clinical Performance Measures for Adults with Nonvalvular Atrial Fibrillation or Atrial Flutter

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Applying Classification of Recommendations and Level of Evidence
<table>
<thead>
<tr>
<th>CLASS I</th>
<th>CLASS IIa</th>
<th>CLASS IIb</th>
<th>CLASS III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit &gt;&gt; Risk</td>
<td>Benefit &gt;&gt; Risk</td>
<td>Benefit ≥ Risk</td>
<td>Risk ≥ Benefit</td>
</tr>
<tr>
<td>Procedure/Treatment SHOULD be performed/administered</td>
<td>Additional studies with focused objectives needed IT IS REASONABLE to perform procedure/administer treatment</td>
<td>Additional studies with broad objectives needed; additional registry data would be helpful Procedure/Treatment MAY BE CONSIDERED</td>
<td>Procedure/Treatment should NOT be performed/administered SINCE IT IS NOT HELPFUL AND MAY BE HARMFUL</td>
</tr>
</tbody>
</table>

**LEVEL A**
Multiple (3-5) population risk strata evaluated*
General consistency of direction and magnitude of effect
- Recommendation that procedure or treatment is useful/effective
- Sufficient evidence from multiple randomized trials or meta-analyses

**LEVEL B**
Limited (2-3) population risk strata evaluated*
- Recommendation that procedure or treatment is useful/effective
- Limited evidence from single randomized trial or nonrandomized studies

**LEVEL C**
Very limited (1-2) population risk strata evaluated*
- Recommendation that procedure or treatment is useful/effective
- Only expert opinion, case studies, or standard-of-care

*Suggested phrases for writing recommendations*

should
is recommended
is indicated
is useful/effective/beneficial

is reasonable
can be useful/effective/beneficial
is probably recommended or indicated

may/might be considered
may/might be reasonable
usefulness/effectiveness is unknown/unclear/uncertain or not well established

is not recommended
is not indicated
should not
is not useful/effective/beneficial
may be harmful
Scope of AFib/ AFLutter

- Estimated 2.2 million Americans with persistent or paroxysmal AFib, US population, Census bureau predicts AFib will exceed 10 million by 2050.
- AFib = 15%-20% of all strokes
- Patients not treated with anticoagulants – 2.1 fold increased risk for stroke and a 2.4 fold increased risk for recurrent severe stroke.
- Incidence greater in men than women (ratio 1.86)
- Last 20 years, 66% increase in hospitalizations for AFib (due to increase in chronic heart disease, better ambulatory monitoring to define diagnosis)
- Mortality higher than for patients in normal sinus

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http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.107.187998
# 2008 Performance Measures Set

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Measure Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of Thromboembolic Risk Factors</td>
<td>Nonvalvular AF patient for whom assessment of thromboembolic risk factors is documented</td>
</tr>
<tr>
<td>Chronic Anticoagulation Therapy</td>
<td>Prescription of Warfarin for all patients with any high risk factor or more than one moderate risk factor</td>
</tr>
<tr>
<td>Monthly INR Measurement</td>
<td>Frequency of monitoring of INR</td>
</tr>
</tbody>
</table>
Guidelines for the Management of Patients with Atrial Fibrillation

- The selection of the antithrombotic agent should be based upon the absolute risks of stroke and bleeding and the relative risk and benefit for a given patient.
  
  Class I, Level of Evidence A

- Anticoagulation with a vitamin K antagonist is recommended for patients with more than 1 moderate risk factor. Such risk factors include age 75 y or greater, hypertension, HF, impaired LV systolic function (EF 35% or less or fractional shortening less than 25%) and diabetes mellitus.
  
  Class I, Level of Evidence A

- INR should be determined at least weekly during initiation of therapy and monthly when anticoagulation is stable. Class I, Level of Evidence A
Assessment of Thromboembolic Risk

**CHADS2 Criteria Risk Score**

- Prior stroke or TIA: 2=High Risk
- Age 75 years or older: 1=Mod risk
- Hypertension: 1=Mod Risk
- Diabetes mellitus: 1=Mod Risk
- Heart failure or impaired left ventricular systolic function: 1=Mod Risk

**CHADS2** = Cardiac failure, Hypertension, Age, Diabetes, Stroke [doubled]

## Antithrombotic Therapy for Patients With Nonvalvular AF*

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Recommended Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>No risk Factors</td>
<td>Aspirin 81 to 325 mg daily</td>
</tr>
<tr>
<td>One moderate-risk factor</td>
<td>Aspirin 81 to 325 mg daily or warfarin (INR 2.0 to 3.0, target 2.5)</td>
</tr>
<tr>
<td>Any high-risk factor or more than 1 moderate-risk factor†</td>
<td>Warfarin (INR 2.0 to 3.0, target 2.5)†</td>
</tr>
</tbody>
</table>

This table adapted from Fuster et al. Ref 4 of manuscript, see definition of moderate – high risk factors.

INR=International Normalized Ratio
Risk Factors for Stroke in AF

- Less Validated or Weaker Risk factors
  - Female gender
  - Age 65-74 years
  - Coronary artery disease
  - Thyrotoxicosis

- Moderate Risk Factors*
  - Age more than or equal to 75 years
  - Hypertension
  - Heart Failure
  - LVEF 35% or less (LVEF = left ventricular ejection fraction)
  - Diabetes mellitus

- High risk Factors
  - Prior Stroke, TIA or systemic embolism

Estes, NA Mark, et al. ACC/AHA/Physician Consortium 2008 Clinical Performance Measures for Adults with Nonvalvular Atrial Fibrillation or Atrial Flutter. Table 10
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The full-text Performance Measure is also available on the American Heart Association Web site:

www.american-heart.org