

# Stroke Prevention Tops New Atrial Fib Guidelines

BY MITCHEL L. ZOLER  
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New guidelines for managing patients with atrial fibrillation sharpened the definition of who should get antithrombotic prophylaxis and elevated the role for catheter ablation for this increasingly common disorder.

The atrial fibrillation (AF) guidelines, published in August by a committee assembled by the American College of Cardiology, the American Heart Association, and the European Society of Cardiology, "simplifies therapy and expands the indications for anticoagulation," said Dr. Lars Rydén, a cardiologist and professor emeritus at the Karolinska Institute, Stockholm, and cochair of the guidelines committee.

A revision of guidelines first released in 2001, "the new guidelines focus more on [each patient's] total risk for thromboembolism than the previous guidelines, and bring in a number of factors that increase the risk," Dr. Rydén said in an interview. "We're telling people to look at a patient's total risk when deciding on anticoagulation. This risk may change over time, and

there is a need to reevaluate patients." The revision also makes the AF guidelines more consistent with other guidelines that deal with antithrombotic treatment.

The new guidelines call for thromboembolism prophylaxis with aspirin, at a dosage of 81-325 mg/day, for all patients with AF who are not receiving warfarin (J. Am. Coll. Cardiol. 2006;48:854-906). The guidelines also identify five types of moderate-risk factors that identify patients who could either receive aspirin or are candidates for prophylaxis with warfarin, with a target international normalized ratio (INR) of 2.5 and a range of 2.0-3.0. Another three clinical findings were defined as high-risk factors that each mandate prophylaxis with warfarin as does having two or more moderate-risk factors. (See box.) The INR target is the same.

The guidelines also identified four less-validated or weaker risk factors that don't warrant changing the basic aspirin regimen. These are female gender, an age of 56-74 years, and presence of coronary artery disease or thyrotoxicosis.

Universal prophylaxis with aspirin or warfarin marks a significant change in

what's been standard practice in the United States, Europe, and elsewhere. "Presently, there is huge undertreatment in clinical practice for decreasing the risk of thromboembolism in patients with AF," Dr. Rydén said. "Proper management according to the guidelines will prevent a number of strokes and other manifestations of thromboembolism."

Another noteworthy change from the 2001 guidelines was the larger role given to catheter ablation of arrhythmogenic foci. The new guidelines say ablation is reasonable "when pharmacological therapy is insufficient or associated with side effects."

Setting catheter ablation as a second-line therapy reflected the rapid acceptance of the technique since it was first reported in the late 1990s. The 2001 guidelines said that catheter ablation had produced promising results but had not yet been widely applied, and the method was listed as a tertiary option or lower.

"The guidelines underline that [ablation] is an interesting and very promising method, but there is still a need for much more exact information on the absolute benefits, risk/benefit ratio, and long-term complications," said Dr. Rydén.

Dr. Rydén said that a reasonable trial of pharmacotherapy would involve trying at



Universal prophylaxis is a change from standard practice. Shown is a mobile and protruding thrombus in an AF patient.

least two different drugs or drug combinations, and giving each a reasonable interval to work. "At present, ablation is a technique [used] when other treatment modalities are contraindicated, stopped due to side effects, or have unsatisfactory value."

The new guidelines also provide a comprehensive sequence for dealing with AF patients.

"It is probable that patients with AF are sometimes subjected to many attempts to reestablish sinus rhythm. But many patients would do as well with proper rate control," Dr. Rydén said.

The guidelines say that at least one attempt to restore sinus rhythm is reasonable, but that further attempts should be based on the severity of arrhythmia-related symptoms balanced against the risk of using antiarrhythmic drugs. ■

## Antithrombotic Prophylaxis for Atrial Fibrillation Patients

Risk Category	Risk Factors	Treatment for One Risk Factor
High	History of stroke, transient ischemic attack, or embolism; mitral stenosis; prosthetic heart valve; two or more moderate risk factors	Warfarin to target INR 2.5 (range 2.0-3.0)
Moderate	Age $\geq$ 75 years, hypertension, heart failure, left ventricular ejection fraction $\leq$ 35%, diabetes	Daily aspirin or warfarin to target INR 2.5 (range 2.0-3.0)
All others	—	Aspirin 81-325 mg/day

Source: Journal of the American College of Cardiology

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## Regular Exercise of Benefit In Permanent Atrial Fibrillation

BY KATE JOHNSON  
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BOSTON — Regular, moderate exercise can help control ventricular rate in patients with permanent atrial fibrillation, according to study results presented as a poster at the annual meeting of the Heart Rhythm Society.

"Patients with atrial fibrillation [AF] find it difficult to exercise, so this is a new idea," investigator Dr. Jurgita Plisiene said in an interview.

Ventricular rate increases during exercise, making it difficult for the patients to improve their exercise capacity. But Dr. Plisiene found that 4 months of twice-weekly exercise, involving walking or jogging for 60 minutes, increased exercise capacity in 10 patients with permanent AF, while also regulating the ventricular rate. "Exercise elevates the parasympathetic tone to the [atrioventricular] node and so decreases the ventricular rate," she said.

The patients had a mean age of 59 years and a mean 10 years' duration of permanent AF. They undertook individualized, physician-directed exercise programs tailored to their physical capacity. Physical exercise tests and Holter ECG recordings were performed at baseline and after 4 months.

Results showed that the exercise program decreased the patients' mean ventricular rate by 12%. The mean rate at rest decreased from 87 to 78 beats per minute, and there was a significant ventricular rate decrease at almost every exercise level.

In addition, overall exercise capacity, as estimated by repeated lactate measurements and by questionnaires, also significantly improved. "Physical training should be taken into account in those patients in whom drug therapy does not allow the heart to reach adequate ventricular rate control during AF," said Dr. Plisiene, a cardiologist at University Hospital in Aachen, Germany. ■

## Acute Myocardial Infarction Risk Higher in Men With Gout

BY SARAH PRESSMAN  
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Men with a history of gouty arthritis have a significantly higher risk of developing an acute myocardial infarction, reported Dr. Eswar Krishnan of the University of Pittsburgh, and his associates.

"This study is the first to show that in men with no previous history of coronary artery disease, gouty arthritis is a significant independent correlate of subsequent acute myocardial infarction," they said.

The results revealed a significantly greater number of acute MI events in men with gout (odds ratio, 1.26). The study also showed that hyperuricemia is an independent risk factor for acute MI (OR, 1.11).

The finding comes from an evaluation of the Multiple Risk Factor Intervention Trial (MRFIT) data. Researchers of MRFIT, a randomized controlled trial of 12,866 men with a mean age of 46 years, followed the

group prospectively for approximately 6.5 years. Initial evaluation included blood pressure and cholesterol measurements (Arthritis Rheum. 2006;54:2688-96).

Men with a history of diabetes, acute MI, a high cholesterol level (350 mg/dL or higher), a diastolic blood pressure of greater than 115 mm Hg, and body weight greater than 150% of desirable weight were excluded. In the original trial, the participants were randomized to a special intervention program that promoted smoking cessation and blood pressure and cholesterol reduction versus usual care, Dr. Krishnan and his associates reported.

The researchers used a two-part definition of gout. Participants had to answer affirmatively when asked if they had ever been told by a physician that they had gout. They also had to have a uric acid level of greater than 7.0 mg/dL on at least four visits. This definition was used because obtaining joint fluid samples on all participants was not within the trial's scope. ■