

# AF Ablation Consensus Will Enable Better Care

BY BRUCE JANCIN  
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DENVER — Announcement of the first-ever formal international consensus statement on catheter and surgical ablation of atrial fibrillation couldn't have come at a better time to help restore luster to the field's tarnished credibility, leading electrophysiologists agreed in a panel discussion held to celebrate the document's release at the annual meeting of the Heart Rhythm Society.

"This document is important because it comes at a time when we're very close to losing all of our credibility, whether you're talking about referring physicians or government agencies or insurance providers. I think a lot of distrust has been building," said Dr. David J. Callans, professor of medicine and director of the electrophysiology laboratory at the Hospital of the University of Pennsylvania, Philadelphia.

The source of the plummeting credibility over the past 2-3 years, as atrial fibrillation (AF) ablation has really taken off in popularity, is twofold: implausibly wide variation in published efficacy rates, and growing recognition that there has been widespread underreporting of complications, he added.

Dr. Kenneth A. Ellenbogen said that published treatment success rates at high-volume centers range from 11% to 100%.

"It boggles the mind. When people see that they ask, 'What's going on?'" said Dr. Ellenbogen, professor of medicine and vice chairman of cardiology at the Medical College of Virginia, Richmond.

Dr. Peter R. Kowey said he, too, gets asked that discomfiting question a lot. "There is a good deal of unhappiness among many people who have referred us patients, because of our inability to really get our hands around this issue," added Dr. Kowey, president of the Heart Center at Main Line Health System, Philadelphia, and professor of medicine at Jefferson Medical College, Philadelphia.

The consensus statement was developed by the Heart Rhythm Society, the European Heart Rhythm Association, and the European Cardiac Arrhythmia Society in collaboration with the American College of Cardiology, American Heart Association, and Society of Thoracic Sur-

geons. It lays out recommendations for the indications for ablation, techniques, patient follow-up, and training and competency of operators, as well as the expected range of results.

"These guidelines are a major step toward helping physicians provide better, safer, and more consistent care," declared Dr. Hugh Calkins, chair of the task force that developed the expert consensus statement and professor of medicine and director of the arrhythmia service and electrophysiology laboratory at the Johns Hopkins Hospital, Baltimore.

The 46-page "Expert Consensus Statement on Catheter and Surgical Ablation of Atrial Fibrillation: Recommendations for Personnel, Policy, Procedures, and Follow-up" addresses technical aspects of the procedure in greater detail than did last year's ACC/AHA/European Society of Cardiology (ESC) revised practice guidelines on the management of atrial fibrillation (*J. Am. Coll. Cardiol.* 2006;48:e149-246).

The new consensus statement adopts for the ablation community the AF classification system developed in the 2006 ACC/AHA/ESC guidelines. Paroxysmal AF is defined as recurrent AF that terminates spontaneously within 7 days. Persistent AF is AF that is sustained beyond 7 days or lasts less time but necessitates cardioversion. Long-standing persistent AF is defined as continuous AF lasting more than 1 year.

The 2006 ACC/AHA/ESC guidelines were the first-ever revision to list ablation as a second-line treatment for AF. The ablation consensus panel agreed that in general catheter ablation shouldn't be considered first-line therapy and stated that the primary indication for the procedure is the presence of symptomatic AF refractory or intolerant to at least one class I or III antiarrhythmic drug. Surgical AF ablation is indicated for symptomatic AF patients undergoing other cardiac surgery, selected asymptomatic AF patients undergoing heart surgery in whom the ab-



lation can be performed with minimal risk, and as a stand-alone operation in only limited circumstances, Dr. Calkins explained.

The expert panel recommended adherence to the anticoagulation guidelines listed in the 2006 ACC/AHA/ESC guidelines, with the added comment that patients in persistent AF at the time of ablation should have a transesophageal echocardiograph to screen for a thrombus.

Warfarin is recommended for at least 2 months post ablation. Decisions regarding its use beyond then should be based on the patient's stroke risk factors rather than the presence or type of AF. Continuation of warfarin is generally recommended in pa-

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tients with a CHADS score of 2 or greater. A patient's wish to discontinue long-term warfarin is not an appropriate indication for ablation because there is not as yet convincing evidence that ablation safely allows this practice, according to Dr. Calkins.

The 2006 ACC/AHA update of clinical competence in invasive electrophysiology proposed a minimum of 30-50 AF ablation procedures (*J. Am. Coll. Cardiol.* 2006; 48:1503-17). The expert consensus panel considered that too low to achieve a high degree of proficiency and cited evidence that outcomes are better at centers that have performed more than 100 ablations.

"Electrophysiologists should perform several ablation procedures per month if they intend to be active in this area," Dr. Calkins said. "Is 'several' two, three, four? It's somewhere in that range."

Although numerous techniques have been developed for AF catheter ablation, the panel said that targeting the pulmonary veins and/or antrum is the cornerstone of most procedures, and that the goal in targeting the pulmonary veins is their complete electrical isolation. For surgical isolation of the pulmonary veins, entrance and/or exit block must be demonstrated.

Dr. Kowey balked at calling the report a practice guideline.

"It's a valuable document that summarizes the state of the art. The reason it shouldn't be considered a guideline is because almost everything that's in this document doesn't have solid scientific data to support it," he said. "You don't see things that typify guidelines, like the class of the recommendations or weight of the evidence, A through C, because the evidence doesn't exist."

Dr. Josep Brugada, co-chair of the report task force, conceded the point.

"The growth in technique has been far ahead of the scientific evidence," observed Dr. Brugada, president-elect of the European Heart Rhythm Association and chief of cardiology at the University of Barcelona Hospital Clinic. "We might have to change our minds a few years from now. We said, for example, that pulmonary vein isolation is the cornerstone of atrial fibrillation ablation. We believe it's true, it probably is, but we might be wrong. We have to wait."

The document's greatest contribution, panelists agreed, is that it imposes for the first time a common language on the young and rapidly evolving field of atrial fibrillation ablation. It defines the training and technical competence needed to perform the procedure, complications, appropriate follow-up and long-term management, and a recommended anticoagulation regimen, and it insists that henceforth all reported success rates must include figures on single-session outcomes.

"I can't tell you how many papers I've read where you can't figure out how many ablation procedures patients have gotten," Dr. Ellenbogen complained.

The consensus statement will prove invaluable as a teaching tool for the swelling ranks of physicians just starting out in atrial fibrillation ablation, panelists said.

Up until now, Dr. Brugada pointed out, how-to-do-it workshop attendees were likely to hear five markedly different opinions from any five leading experts.

The consensus statement hammers out minimum points of agreement.

"For people who don't have a lot of expertise, to have this collective wisdom distilled in a document is a great gift," according to Dr. Callans. ■

The consensus document is available at [www.hrsonline.org/Policy/ClinicalGuidelines](http://www.hrsonline.org/Policy/ClinicalGuidelines).

## Diabetes Tied to Risk of Atrial Fib Recurrence After Ablation

BY BRUCE JANCIN  
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DENVER — Radiofrequency ablation of atrial fibrillation durably eliminates the arrhythmia in most treated patients but may be just a temporary fix in those with diabetes or another underlying arrhythmogenic substrate unaffected by the procedure, Dr. Anita Wokhlu said at the annual meeting of the Heart Rhythm Society.

Ablation of atrial fibrillation (AF) is a relatively recent development, and most efficacy studies to date are limited to 12 months of follow-up. Dr. Wokhlu is particularly interested in what happens later.

Development of a risk factor profile for AF recurrence would permit patients unlikely to obtain sustained benefit to be spared the expense and risks of ablation, noted

Dr. Wokhlu of the Mayo Clinic, Rochester, Minn.

She reported on 428 patients who underwent a first radiofrequency ablation procedure for paroxysmal AF and 379 who were ablated for persistent or permanent AF during 1999-2006 at the Mayo Clinic.

At 2 years of follow-up, 64% of the overall group was free of recurrent AF and off all antiarrhythmic drugs, while 73% were without recurrent AF with or without antiarrhythmic agents. AF was eliminated without need for antiarrhythmic medications in 66% of patients ablated for paroxysmal AF and 54% of those with persistent or permanent AF. Recurrent AF was present in 21% of the paroxysmal and 32% of the persistent or permanent AF group.

Roughly half of all AF recurrences happened more than 6 months after the procedure, and more than 15%

occurred after 1 year. Most of these late recurrences were in patients who underwent ablation for persistent or permanent AF.

At 30 months, 25% of patients in the persistent or permanent AF group were in AF, compared with 15% of paroxysmal AF patients, Dr. Wokhlu continued.

Univariate predictors of a first recurrence of AF after more than 1 year were baseline persistent or permanent AF, hypertension, diabetes, left atrial enlargement, and ablation via wide area circumferential ablation as opposed to pulmonary vein isolation.

In a multivariate proportionate hazard analysis, the three independent predictors of late recurrence of AF were diabetes, persistent or permanent AF as the presenting arrhythmia, and wide area circumferential ablation, she reported. ■