

Roundtable Discussion

The Health and Cost Implications of Atrial Fibrillation

Atrial fibrillation, which is costly and complex to manage, threatens to become a tsunami washing over the U.S. health care system as the Baby Boom population ages. A significant cause of heart attack and stroke, it is the most common sustained heart rhythm disorder, affecting 2.5 million Americans at an annual cost of \$6.5 billion.

Atrial fibrillation, or AFib, can be managed through various treatment options, but determining which approaches work best for which individuals is a complex challenge. Linked often to lifestyle choices — diabetes and hypertension are significant factors underlying its development — AFib is amenable to prevention efforts, but for much of the older generation those efforts cannot be realized in time.

To examine ways to address the looming conundrum of AFib in a population in which obesity is epidemic and in which the ranks of those over age 60 is increasing, the nonprofit Institute of Federal Health Care held a roundtable discussion attended by representatives of federal agencies, academia, professional organizations and the private sector.

The group agreed that preventive efforts to reduce the incidence of AFib are the “gold standard,” since AFib is a late manifestation of underlying pathology affecting the cardiovascular and metabolic systems. Until this “ideal” can be attained, the focus must be on shorter-term advances that can help control AFib while maintaining quality of life.

Specifically, participants said these areas “beg for answers:”

♦ *How to detect asymptomatic disease in the individual before stroke occurs.*

♦ *The use of ablation therapy.* “It needs to be studied to the n^{th} degree” to see if it can reduce recurrence.

♦ *How to make anticoagulation therapy safer.* New agents are needed.

A Lifetime of Therapy

There is no cure for AFib. Consequently, those who are diagnosed —

many cases likely remain undetected — face a lifetime of therapy, traditionally with antiarrhythmic and anticoagulant drugs, both of which can have undesirable side effects and can pose management problems for patient and clinician.

Every patient requires careful therapy calibration and monitoring, and the choices have been limited, though that is beginning to change. While most clinical approaches have focused on preventing stroke, attention

From the discussion ...

- **AFib is most prevalent in those over age 65 and in most cases results from an accumulation of lifestyle factors causing precursor conditions such as hypertension and diabetes.**
- **Because it is progressive, many AFib patients will die of some consequence of their disease. The longer a patient has AFib, the more likely heart damage will occur, making preventive therapy essential. New agents to do this are becoming available.**
- **With type 2 diabetes rates increasing among children, “we must start prevention earlier.” Both patient and clinician education are needed.**
- **Lifestyle factors accumulate to produce a vicious cycle that can lead to AFib. “We can’t do one-point intervention. We must look at gaps in knowledge and perhaps retrain physicians in how to deal with them.”**
- **Super-athletes who engage in heavy endurance exercise appear to be at increased risk of AFib.**
- **“A big issue is the inability to detect disease.” A workshop held by NHLBI in April 2008 recommended research to detect biomarkers for both primary and secondary occurrence.**
[www.nhlbi.nih.gov/meetings/workshops/prevent-af.htm]
- **The roles of various risk factors alone and in combination remain uncertain. Teasing them out will be difficult but could enhance both primary and secondary prevention and treatment.**
- **Each physician-patient encounter should be a learning experience, but the electronic health record systems to make this happen are inadequate or missing.**

now is turning heart rate versus rhythm control measures.

A Challenge for Federal Agencies

While the direct costs of AFib are estimated at about \$6.5 billion a year, a study conducted in 2008 determined that Medicare alone pays \$15.7 billion annually to treat newly diagnosed patients, when all associated complications are taken into account.

The factors underlying AFib development — obesity and subsequent diabetes, hypertension — can be seen in military personnel, especially those in the older age ranges. Roundtable participants urged a focus on prevention, educational efforts for both clinicians and patients, and addressing lifestyle contributors such as the availability of fast food on military bases.

Some roundtable participants suggested there may be increased risk of AFib in National Guard and military reserve troops, many of whom are overweight. Efforts are in progress to determine prevalence in this group.

Since active-duty personnel become veterans when they leave service, “what is done in the military setting affects VA.”

Cost is an issue for all federal agencies, with anticoagulents a major category in pharmaceutical expenditures.

The Centers for Disease Control and Prevention maintains a registry of stroke that includes use of anticoagulant medications. CDC also participates in the “call to action” organized by the cobnsortium of organizations known as AF Stat [www.afstat.org] and devotes a web page to AFib.

On The Horizon

Several trials related to AFib in both basic and translational research

are in progress under the auspices of the National Heart, Lung and Blood Institute (NHLBI) at the National Institutes of Health, such as:

- ◆ Improve upon and validate a recently published risk prediction model from the Framingham Heart Study by performing analyses of pooled data from several large cohorts.
- ◆ Identify causative genes for AFib through Genome-Wide Association Studies.
- ◆ Use the existing Cardiovascular Research Network to develop and test a risk stratification tool for AFib and its thromboembolic (stroke) complications in 10,000 adults in a health care system with advanced electronic medical records.
- ◆ Test the effectiveness of ablation using a limited surgical approach as compared to medical therapy to provide information about the feasibility of a large Phase III randomized trial.
- ◆ Test, in an ancillary study to a large clinical trial, the ability of fish oil to protect against cognitive decline by decreasing AFib incidence in patients undergoing cardiac surgery.

In addition, the CABANA trial, which will examine optimal pharmacologic therapy versus ablation in a randomized approach, is in the early stage of patient enrollment. It eventually will include 140 international sites and 3,000 patients. As new pharmacologic agents become available, they will be incorporated into the study, expected to last until 2015.

[www.clinicaltrials.gov]

The agency for Healthcare Research and Quality (AHRQ) received \$300 million in American Recovery and Reinvestment Act (ARRA) funds for comparative effectiveness studies and is seeking proposals to do this for

AFib using such sources as claims made in HMO, Medicare and other drug databases.

Prevention: The Ultimate Goal

Perhaps, it was suggested, the fact that heart disease and stroke can result from AFib needs the same “advertising push” that breast cancer has received: “Most people aren’t aware that AFib is a major problem.”

Some participants urged development and adoption of a national prevention strategy through the Department of Health and Human Services. However, some cautioned, before an evidence-based prevention strategy can be developed, consensus is needed on the mechanisms linking risk factors and disease development.

At the same time, other participants cautioned, prevention is a misnomer, in that development of AFib can be delayed but not prevented forever — AFib is a consequence of aging. In fact, the group agreed, dealing with end-of-life issues is something American society must come to grips with.

Participants in this roundtable: Kathy Beasley of MOAA; René Campos of MOAA; Franz Fanuka of sanofi-aventis; William Gardner of the American Registry of Pathology; Richard Hodge of sanofi-aventis; Yuling Hong of CDC; John Kugler of the DoD Health Affairs Office; Corinne Lahti; Alice Mascette of NHLBI; Arnauld Nicogossian of George Mason University; Steve Phurrough of the Agency for Healthcare Research and Quality; William Rogers of CMS; Marcel Salive of CMS; Frederic G. Sanford; Sue Schwartz of HealthNet Federal Services; Bryan Steinberg of Washington Adventist Hospital; Marina Vernalis of Walter Reed Army Medical Center; Erich Wedam of the National Naval Medical Center.

The roundtable was moderated by the John Eisold of the National Naval Medical Center. IFHC Managing Director is Nancy Tomich (www.fedhealthinst.org).