

# AFib Overview

*AF Stat™: A Call to Action for Atrial Fibrillation is an initiative sponsored by sanofi-aventis U.S. LLC*

**AF**  **Stat**™  
A Call To Action For Atrial Fibrillation

US.DRO.10.06.018

# Atrial Fibrillation: A Common, Complex, Costly and Progressive Disease



**Atrial fibrillation (AFib) is a condition in which the upper chambers of the heart (the atria) beat in an uncoordinated and disorganized fashion, resulting in a very irregular and fast rhythm**



**Approximately 2.5 million Americans have AFib and the prevalence increases with age<sup>1</sup>**

- About 5 percent of people over age 65 have AFib<sup>2</sup> and by the age of 80 years, 10 percent of people have AFib<sup>3</sup>
- By 2050, an estimated 5.6 million Americans will have AFib<sup>1</sup>



**Possible risks factors for developing AFib**

- HBP,<sup>4</sup> CAD,<sup>4</sup> heart valve disease,<sup>5</sup> and diabetes<sup>6</sup>

1. Go, A. Prevalence of Atrial Fibrillation in Adults: National Implications for Rhythm Management and Stroke Prevention; The Anticoagulation and Risk Factors in Atrial Fibrillation (ATRIA) Study. JAMA, May 9, 2001 – Vol. 285, No. 18.

2. American Heart Association. Atrial Fibrillation, Available at [www.americanheart.org/presenter.jhtml?identifier=4451](http://www.americanheart.org/presenter.jhtml?identifier=4451). Last accessed June 9, 2008.

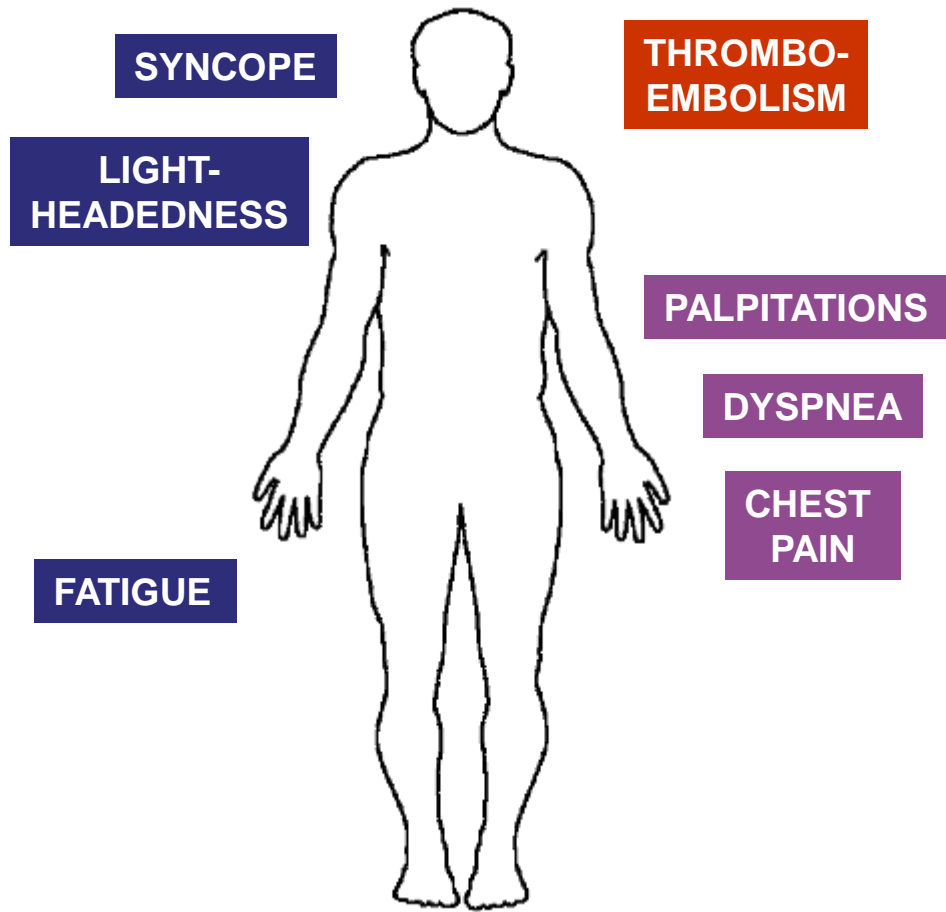
3. ACC/AHA/ESC. 2006 Guidelines for the Management of Patients with Atrial Fibrillation. Circulation 2005; 114:700-752.

4. Gersh, B. The changing epidemiology of non-valvular atrial fibrillation: the role of novel risk factors. European Heart J. Supp. 2005; 7 (Supp. C.) C5-C11.

5. Shea, J. A Patient's Guide to Living with Atrial Fibrillation. Circulation. 2008; 117:e340-e343. Available at <http://circ.ahajournals.org/cgi/content/full/117/20/e340>. Last accessed July 3, 2008.

6. American Heart Association. Living with Atrial Fibrillation. Available at <http://www.americanheart.org/presenter.jhtml?identifier=9>. Last Accessed July 3, 2008.

# Clinical Presentation of AFib



- **AFib presents with a wide range of symptoms<sup>1</sup>**
  - Symptoms may result in functional impairment and interfere with quality of life<sup>1</sup>
  - May also be asymptomatic<sup>2</sup>
- **Impact of asymptomatic AFib<sup>2</sup>**
  - Potential for underlying electrical and structural damage to atrial myocardium
- **While AFib symptoms alone may not always be severe, untreated disease can result in significant morbidity and mortality<sup>3,4</sup>**

1. Fuster V, et al. *Circulation*. 2006;114:e257-e354; 2. Page RL, et al. *Circulation*. 2003;107:1141-1145; 3. *Arch Internal Med*. 1994; 154:1449-1457; 4. Stewart S, et al. *Am J Med*. 2002;113:359-364.

# AFib-Associated Morbidity and Mortality

- Can be present with, be affected by and serve as a contributing factor in a wide range of cardiovascular conditions<sup>1, 2</sup>
- Associated with an increased long-term risk of stroke, heart failure and all-cause mortality<sup>3,4</sup>
  - Mortality rate for patients with AFib is double that for those in sinus rhythm
- May worsen the clinical condition of patients with cardiovascular disease<sup>2,5</sup>
  - Increased heart rate and/or loss of atrial contribution to cardiac output
  - Hemodynamic instability and tachycardia-mediated cardiomyopathy
  - Heightened symptoms

## AFib Risk Increases

### Death:

2-fold ↑ in risk<sup>1</sup>

### Cardiovascular Hospitalization:

2 to 3-fold ↑ in risk<sup>2</sup>

### Thromboembolism (Stroke):

4.5-fold ↑ in risk<sup>1</sup>

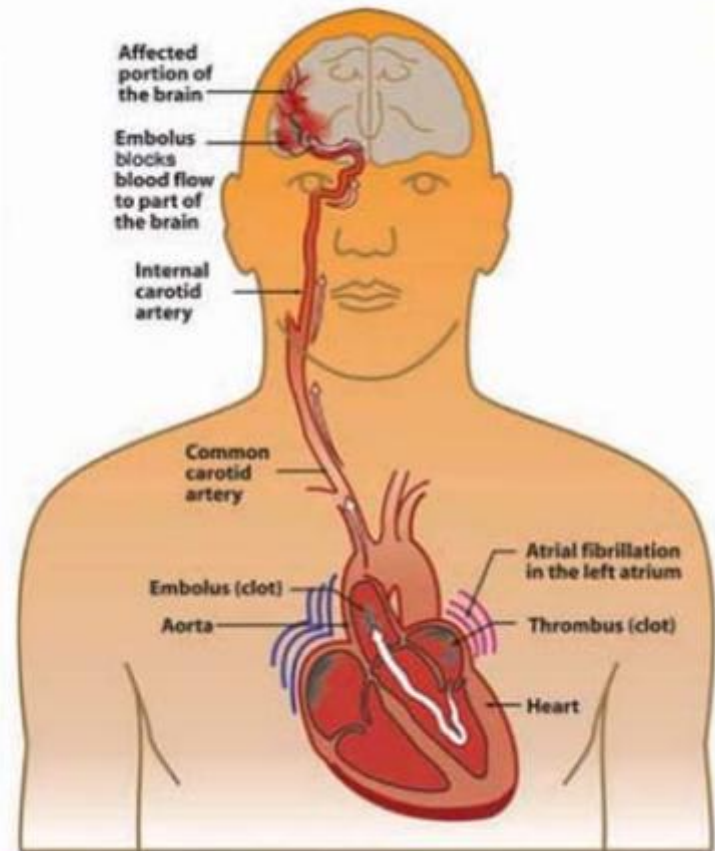
1. Benjamin EJ, et al. *Circulation*. 1998;98:946-952

2. Krahn AD, et al. *Am J Med*. 1995;98:476-484

1. Benjamin EJ, et al. *JAMA*. 1994;271:840-844; 2. Krahn AD, et al. *Am J Med*. 1995;98:476-484; 3. *Arch Intern Med*. 1994;154:1449-1457; 4. Stewart S, et al. *Am J Med*. 200;113:359-364; 5. Fuster V, et al. *Circulation*. 2006;114:e257-e354

# AFib and Stroke

- **Stroke is the most common and devastating complication of AFib<sup>1,2</sup>**
  - Incidence of all-cause stroke in patients with AFib is 5% per year<sup>1</sup>
- **AFib is an independent risk factor for stroke<sup>1</sup>**
  - Risk for stroke increases with age; over half of all strokes occur in patients >75 years<sup>1</sup>
- **Ischemic stroke associated with AFib is often more severe than stroke due to other causes<sup>3</sup>**
- **Stroke risk persists even in patients with asymptomatic AFib<sup>4</sup>**

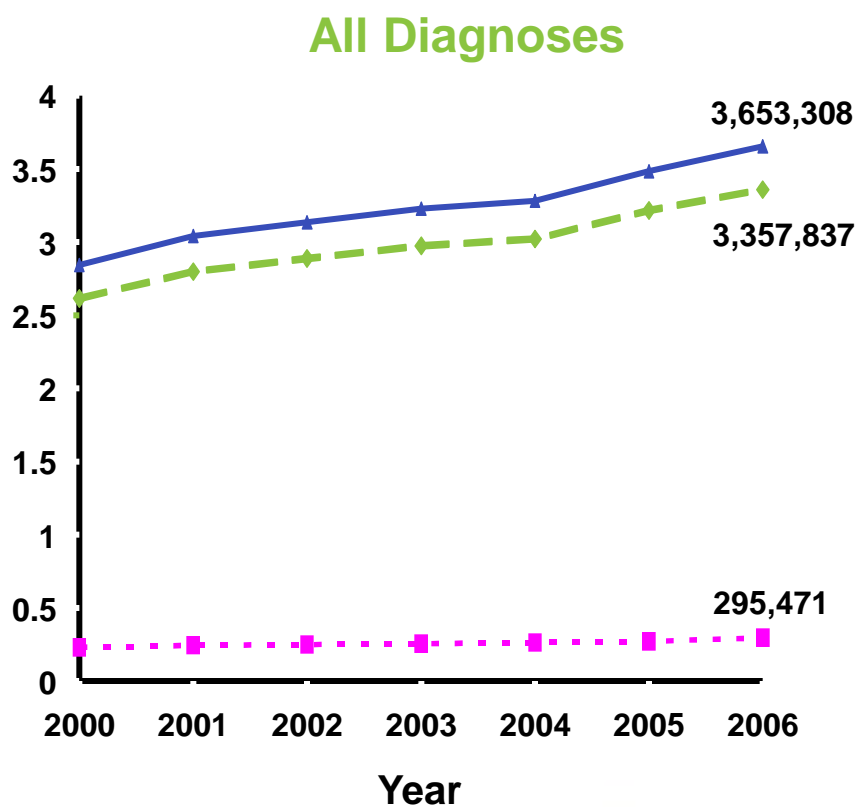
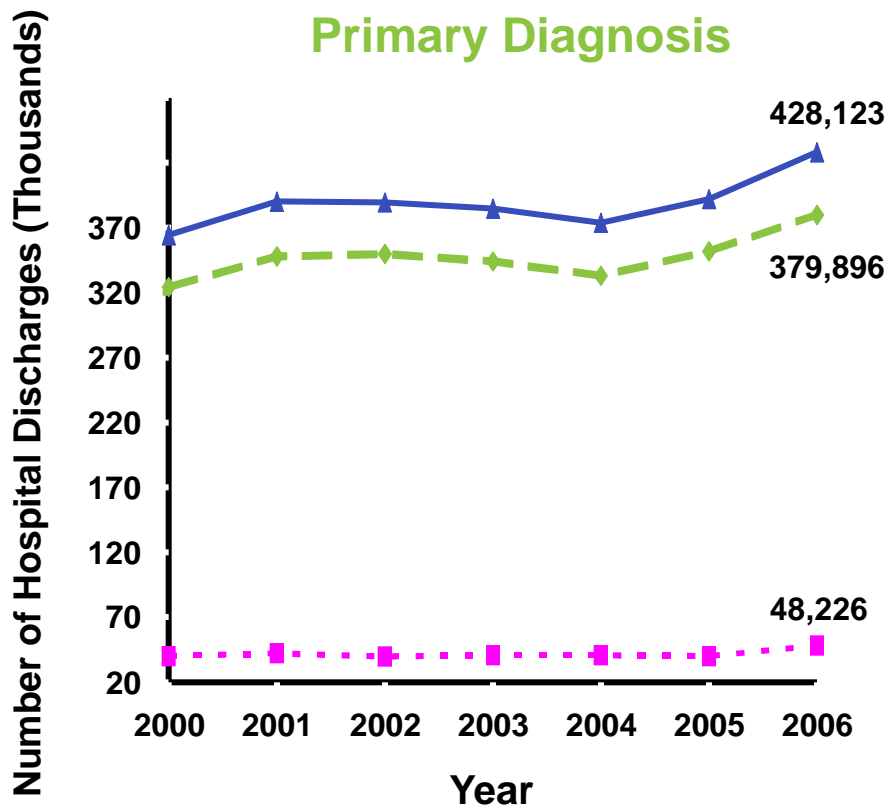


1. Fuster V, et al. *Circulation*. 2006;114:e257-e354; 2. Benjamin EJ, et al. *Circulation*. 1998;98:946-952; 3. Dulli DA, et al. *Neuroepidemiology*. 2003;22:118-123; 4. Page RL, et al. *Circulation*. 2003;107:1141-1145.

# US Hospital Discharges for AFib/AFL, 2000-2006

## Number Hospital Discharges

◆ AFib   
 ■ AFL   
 ▲ AFib/AFL



AHRQ, Health Care Cost Utilization (HCUP) Survey & US Census, 2000-2006

# Greater Use of Healthcare Services Among AFib Patients



- **Medicare AFib patients utilize a significantly greater number of healthcare services compared to beneficiaries without AFib. During the first year following AFib diagnosis:<sup>1</sup>**
  - 28 percent of AFib patients versus 7 percent of non-AFib patients have  $\geq 3$  hospital admissions
  - 14 percent of AFib patients versus 3 percent of non-AFib patients have  $\geq 3$  emergency room visits; and,
  - 72 percent of AFib patients versus 61 percent of non-AFib patients have  $\geq 3$  outpatient visits

<sup>1</sup> Lee W, Lamas G, Balu S., et al. "Direct treatment cost of atrial fibrillation in the elderly American population: a Medicare perspective." *Journal of Medical Economics* 11 (2008): 281-298.  
Note: Formerly on Avalere slide backdrop

# AFib Impacts Quality of Life



## Atrial Fibrillation Adversely Affects Quality of Life

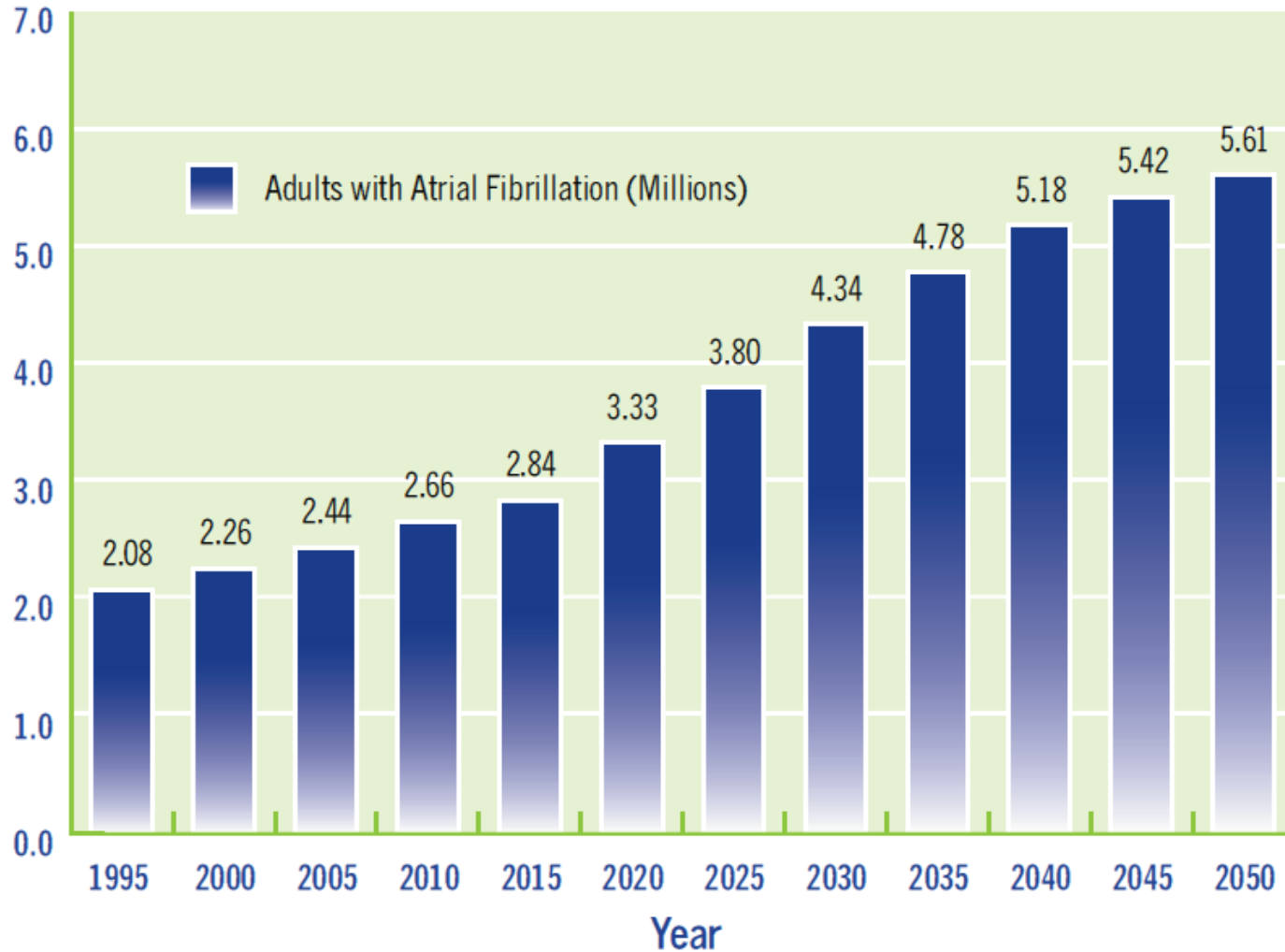
*Adapted from Dorian et al Study*



\* $P < .05$  AFib versus controls.

Dorian P, et al. *J Am Coll Cardiol.* 2000;36:1303-1309.

# Projected Increase in Atrial Fibrillation Prevalence



Go AS, Hylek EM, Phillips KA, et al. Prevalence of diagnosed atrial fibrillation in adults: national implications for rhythm management and stroke prevention: the Anticoagulation and Risk Factors In Atrial Fibrillation (ATRIA) Study. *JAMA*. 2001;285:2370-2375.



## Stroke

JOURNAL OF THE AMERICAN HEART ASSOCIATION

### **RACIAL DISPARITIES EXIST IN AFIB AWARENESS; TREATMENT<sup>1</sup>**

- Study results demonstrated that blacks were approximately one third as likely to be aware that they had AFib as whites
- Findings suggest that lower awareness of AFib and reduced likelihood of treatment among blacks may place them at higher risk of a stroke event, which in turn could contribute to the higher stroke mortality among blacks

## HeartRhythm

The Official Journal  
of the Heart Rhythm Society

### **AFIB LINKED TO DEMENTIA INCIDENCE AND MORTALITY<sup>2</sup>**

- New study results confirm AFib is independently associated with the risks of all forms of dementia, including Alzheimer's
- Study found that greatest risk of dementia was seen in the youngest AFib patient group – those under 70 years old
- These important findings could help clinicians monitor patients more closely for signs of dementia and mortality risks

## JGIM

Journal of General Internal Medicine

### **PEOPLE WITH DIABETES AT HIGHER RISK FOR AFIB<sup>3</sup>**

- New study results show that people with diabetes have a 40 percent greater risk of developing AFib
- The risk of AFib rises even higher the longer people have diabetes and as their blood sugar becomes less controlled

1. Meschia, James E. "Racial Disparities in Awareness and Treatment of Atrial Fibrillation." *Stroke*. 2010;41:581.  
2. Bunch, Jared T. "Atrial fibrillation is independently associated with senile, vascular, and Alzheimer's dementia." *HeartRhythm*. April 2010 (Vol. 7, Issue 4, Pages 433-437). 3. Dublin, Sascha. "Diabetes Mellitus, Glycemic Control, and Risk of Atrial Fibrillation." *Journal of General Internal Medicine*. April 2010, Pages 0884-8734.