



# Management of Atrial Fibrillation (AF)–Related Stroke Risk: A Healthcare Imperative

## AF leads to a substantial number of strokes

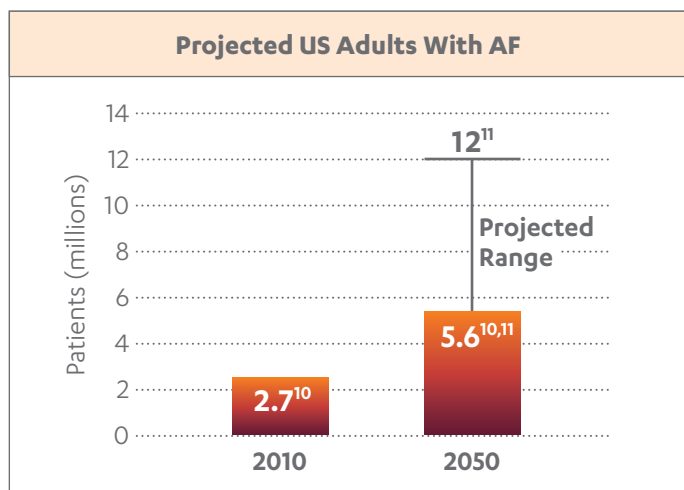
AF is responsible for at least 15% to 20% of all ischemic strokes<sup>1</sup> and 36% of strokes in those 80 to 89 years of age<sup>2</sup>

### AF-related stroke is typically more severe, more likely to recur, and leads to more deaths

- More impairment\* at 30 days,<sup>3</sup> 3 months,<sup>4</sup> and 1 year<sup>5</sup>
- Greater dependency† for severe strokes at 3, 6, and 12 months<sup>4,6</sup>
- 1.7 times more likely to be bedridden<sup>7</sup>
- More than 2 times higher recurrence rates at 6 months and 1 year after first stroke<sup>6,8</sup>
- 2 times as likely to be fatal<sup>9</sup>

### AF prevalence is growing as the population ages

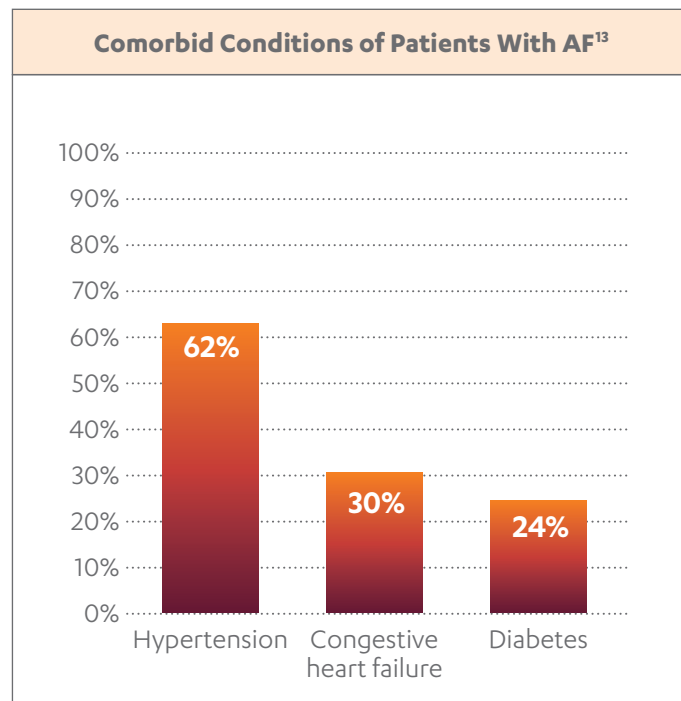
- Approximately 82% of people with AF are ≥65 years of age<sup>10</sup>



\*Impairment determined by scores on modified Rankin Scale.  
†Dependence measured on the Barthel Index.

### AF-related stroke risk increases with common comorbidities

- Along with age, additional risk factors for stroke in patients with AF include a history of hypertension, diabetes mellitus, prior stroke or transient ischemic attack (TIA), and heart failure<sup>2,12</sup>



Retrospective database analysis from Medicare and commercial health insurance plans (July 2004-Dec 2005).

# Guidelines Recommend Thromboprophylaxis for Most Patients With AF

## ACC/AHA/HRS Guidelines for Managing Patients With AF<sup>14</sup>

For patients with NVAF and prior stroke, TIA or CHA<sub>2</sub>DS<sub>2</sub>-VASc score of ≥2 oral anticoagulants are recommended.

For patients with NVAF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 1, no antithrombotic therapy or treatment with an oral anticoagulant or aspirin may be considered.

For patients with NVAF and CHA<sub>2</sub>DS<sub>2</sub>-VASc of 0, it is reasonable to omit antithrombotic therapy.

Selection of antithrombotic agent should be based on risks of thromboembolism, shared decision-making, discussion of risks of stroke and bleeding, and the patient's preferences.

Adapted from January CT, et al.

## Nearly half of at-risk patients with AF may not be receiving thromboprophylaxis in accordance with guideline recommendations—regardless of care setting<sup>15-17</sup>

### Barriers to more effective stroke risk management in patients with AF include:

- Incomplete knowledge of guidelines among HCPs<sup>18</sup>
- Complexities of stroke-risk stratification<sup>12,19,20</sup>
- Patients' problems with adherence to thromboprophylaxis<sup>18,21,22</sup>
- Limited patient knowledge about AF and stroke risk; thromboprophylaxis risks and benefits<sup>17,22</sup>

### For a comprehensive list of affordability programs, please visit [JanssenPrescriptionAssistance.com](http://JanssenPrescriptionAssistance.com)

Abbreviations: ACC, American College of Cardiology; AHA, American Heart Association; HCP, healthcare professional; HRS, Heart Rhythm Society.

**References:** **1.** Roger VL, Go AS, Lloyd-Jones DM, et al; on behalf of American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2011 update: a report from the American Heart Association. *Circulation*. 2011;123(4):e18-e209. **2.** Fuster V, Rydén LE, Cannom DS, et al. 2011 ACCF/AHA/HRS focused updates incorporated into the ACC/AHA/ESC 2006 guidelines for the management of patients with atrial fibrillation: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *Circulation*. 2011;123(10):e269-e367. **3.** Censori B, Camerlingo M, Casto L, et al. Prognostic factors in first-ever stroke in the carotid artery territory seen within 6 hours after onset. *Stroke*. 1993;24(4):532-535. **4.** Lamassa M, Di Carlo A, Pracucci G, et al. Characteristics, outcome, and care of stroke associated with atrial fibrillation in Europe: data from a multicenter multinational hospital-based registry (the European Community Stroke Project). *Stroke*. 2001;32:392-398. **5.** Appelros P, Nydevik I, Viitanen M. Poor outcome after first-ever stroke: predictors for death, dependency, and recurrent stroke within the first year. *Stroke*. 2003;34:122-126. **6.** Lin H-J, Wolf PA, Kelly-Hayes M, et al. Stroke severity in atrial fibrillation: the Framingham study. *Stroke*. 1996;27:1760-1764. **7.** Dulli DA, Stanko H, Levine RL. Atrial fibrillation is associated with severe acute ischemic stroke. *Neuroepidemiology*. 2003;22:118-123. **8.** Wolf PA, Kannel WB, McGee DL, Meeks SL, Bharucha NE, McNamara PM. Duration of atrial fibrillation and imminence of stroke: the Framingham study. *Stroke*. 1983;14(5):664-667. **9.** Miller PSJ, Andersson FL, Kalra L. Are cost benefits of anticoagulation for stroke prevention in atrial fibrillation underestimated? *Stroke*. 2005;36(2):360-366. **10.** 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(18):2370-2375. **11.** Roger VL, Go AS, Lloyd-Jones DM, et al. Heart disease and stroke statistics—2012 update: a report from the American Heart Association. *Circulation*. 2012;125(1):e2-e220. **12.** Gage BF, Waterman AD, Shannon W, Boehler M, Rich MW, Radford MJ. Validation of clinical classification schemes for predicting stroke: results from the National Registry of Atrial Fibrillation. *JAMA*. 2001;285(22):2864-2870. **13.** Nacarelli GV, Varker H, Lin J, Schulman KL. Increasing prevalence of atrial fibrillation and flutter in the United States. *Am J Cardiol*. 2009;104(11):1534-1539. **14.** January CT, Wann LS, Alpert JS, et al. 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation: Executive summary: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society. *Circulation*. 2014;130:e199-e267. **15.** Goto S, Bhatt DL, Röther J, et al. Prevalence, clinical profile, and cardiovascular outcomes of atrial fibrillation patients with atherothrombosis. *Am Heart J*. 2008;156(5):855-863. **16.** Waldo AL, Becker RC, Tapson VF, Colgan KJ. For the NABOR Steering Committee. Hospitalized patients with atrial fibrillation and a high risk of stroke are not being provided with adequate anticoagulation. *J Am Coll Cardiol*. 2005;46(9):1729-1736. **17.** Lopes RD, Li L, Granger CB, et al. Atrial fibrillation and acute myocardial infarction: antithrombotic therapy and outcomes. *Am J Med*. 2012;125(9):897-905. **18.** Pugh D, Pugh J, Mead GE. Attitudes of physicians regarding anticoagulation for atrial fibrillation: a systematic review. *Age Ageing*. 2011;40(6):675-683. **19.** Lip GYH, Nieuwlaat R, Pisters R, Lane DA, Crijns HJ. Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation. *Chest*. 2010;137(2):263-272. **20.** Camm AJ, Lip GYH, De Caterina R, et al. An update of the 2010 ESC Guidelines for the management of atrial fibrillation. 2012 focused update of the ESC Guidelines for the management of atrial fibrillation. *Europace*. 2012. doi:10.1093/europace/eus305. **21.** Fang MC, Go AS, Chang Y, et al. Warfarin discontinuation after starting warfarin for atrial fibrillation. *Circ Cardiovasc Qual Outcomes*. 2010;3(6):624-631. **22.** Lip GYH, Agnelli G, Thach AA, Knight E, Rost D, Tangelder MJD. Oral anticoagulation in atrial fibrillation: a pan-European patient survey. *Eur J Intern Med*. 2007;18(3):202-208.