



ORIGINAL RESEARCH | 16 OCTOBER 2018

# Effect of Variation in Published Stroke Rates on the Net Clinical Benefit of Anticoagulation for Atrial Fibrillation

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<b>Abstract</b>	FULL TEXT				MORE ▼
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**Background:** Stroke rates in patients with nonvalvular atrial fibrillation (AF) who are not receiving anticoagulant therapy vary widely across published studies; the resulting effect on the net clinical benefit of anticoagulation in AF is unknown.

**Objective:** To determine the effect of variation in published AF stroke rates on the net clinical benefit of anticoagulation.

**Design:** Markov model decision analysis. Warfarin was the base case, and non-vitamin K antagonist oral anticoagulants (NOACs) were modeled in a secondary analysis.

**Setting:** Community-dwelling adults.

**Patients:** 33 434 adults with incident AF.

**Measurements:** Quality-adjusted life-years (QALYs).

**Results:** Of the 33 434 patients, 27 179 had a CHA<sub>2</sub>DS<sub>2</sub>-VASc (congestive heart failure, hypertension, age, diabetes, stroke, and vascular disease) score of 2 or

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more. The population benefit of warfarin anticoagulation for these patients was least using stroke rates from the ATRIA (AnTicoagulation and Risk Factors In Atrial Fibrillation) study and greatest using those from the Danish National Patient Registry (6290 QALYs [95% CI,  $\pm 2.3\%$ ] vs. 24 110 QALYs [CI,  $\pm 1.9\%$ ];  $P < 0.001$ ). The optimal CHA<sub>2</sub>DS<sub>2</sub>-VASc score threshold for anticoagulation was 3 or more using stroke rates from ATRIA, 2 or more using those from the Swedish AF cohort study, 1 or more using those from the SPORTIF (Stroke Prevention using ORal Thrombin Inhibitor in atrial Fibrillation) study, and 0 or more using those from the Danish National Patient Registry. Accounting for lower rates of NOAC-associated intracranial hemorrhage decreased optimal CHA<sub>2</sub>DS<sub>2</sub>-VASc score thresholds, but these thresholds still varied widely.

**Limitation:** Measured benefit may not generalize to other populations.

**Conclusion:** Variation in published AF stroke rates for patients not receiving anticoagulant therapy results in multifold variation in the net clinical benefit of anticoagulation. Guidelines should better reflect the uncertainty in current thresholds of stroke risk score for recommending anticoagulation.

**Primary Funding Source:** None.

FULL TEXT



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CITATIONS



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**Published:** *Ann Intern Med.* 2018;169(8):517-527.

**DOI:** 10.7326/M17-2762

Published at [www.annals.org](http://www.annals.org) on 25 September 2018

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