

Journal of the American College of Cardiology

Volume 72, Issue 5, 31 July 2018, Pages 477-485

Original Investigation

Effectiveness and Safety of Standard- and Low-Dose Rivaroxaban in Asians With Atrial Fibrillation

Yi-Cheng Lin PharmD ^a, Shu-Chen Chien PharmD ^{a, b}, Yi-Chen Hsieh PhD ^{c, d, e}, Chun-Ming Shih MD, PhD ^{f, g}, Feng-Yen Lin PhD ^{f, g}, Nai-Wen Tsao MD ^{f, g}, Chih-Wei Chen MD ^f, Yung-Ta Kao MD ^f, Kuang-Hsing Chiang MD ^{f, h}, Wan-Ting Chen ⁱ, Li-Nien Chien PhD ^{j, * 〇 〓}, Chun-Yao Huang MD, PhD ^{f, g, * 〇 〓}

 [Show more](#)

<https://doi.org/10.1016/j.jacc.2018.04.084>

[Get rights and content](#)

Referred to by Peter Brønnum Nielsen, Flemming Skjøth, Mette Søgaaard

[Causal Inference From Real-World Data](#)

Journal of the American College of Cardiology, Volume 72, Issue 5, 31 July 2018, Pages 486-488

 [Purchase PDF](#)

Abstract

Background

Low-dose [rivaroxaban](#) (10 mg/day) has been widely used in Asia for patients with atrial fibrillation (AF), although there is a lack of evidence regarding its effectiveness. In Asians, it is unclear whether low-dose rivaroxaban is equally effective as that of the standard dose or is associated with less bleeding risk.

Objectives

The aim of this study was to evaluate the effectiveness and safety of standard-dose (15 or 20 mg/day) and low-dose (10 mg/day) rivaroxaban in Asians with AF.

Methods

 [Outline](#)  [Purchase](#) [Export](#) 

Using data files from the National Health Insurance Research Database between

May 1, 2014, and September 30, 2015, a retrospective population-based [cohort study](#) was conducted in patients diagnosed with AF or [atrial flutter](#) and treated with low- or standard-dose rivaroxaban. Patients were followed up until the first occurrence of the study outcome or the end of the observation period (December 31, 2015).

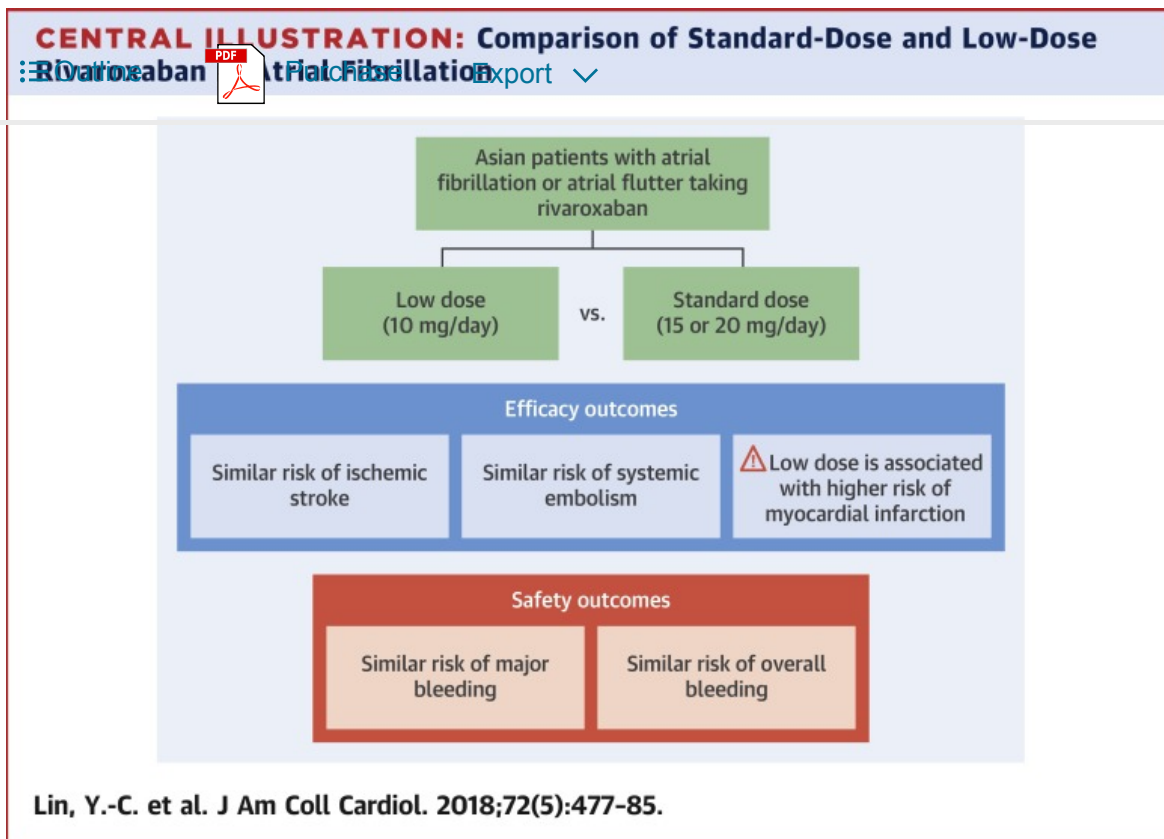
Results

Among 6,558 eligible patients, a total of 2,373 and 4,185 patients took low- and standard-dose rivaroxaban, respectively. Compared to standard-dose rivaroxaban, low-dose rivaroxaban was associated with a significantly higher risk of [myocardial infarction](#) (subdistribution [hazard ratio](#): 2.26; [95% confidence interval](#): 1.13 to 4.52), with similar risk of [ischemic stroke](#), systemic [embolism](#), [major bleeding](#), and nonmajor clinically relevant bleeding.

Conclusions

Compared to standard-dose rivaroxaban, low-dose rivaroxaban in Asian patients with AF was associated with similar risks of [thromboembolism](#) and bleeding except myocardial infarction.

Central Illustration



[Download high-res image \(490KB\)](#)

[Download full-size image](#)

[Previous article](#)

[Next article](#)

Key Words

bleeding; embolism; myocardial infarction; non-vitamin K antagonist oral anticoagulant; stroke

Abbreviations and Acronyms

AF, atrial fibrillation; CI, confidence interval; MI, myocardial infarction; NHIRD, National Health Insurance Research Database; NOAC, non-vitamin K antagonist oral anticoagulant; SHR, subdistribution hazard ratio

Choose an option to locate/access this article:

Check if you have access through your login credentials or your institution.

[Check Access](#)

[Purchase](#)
[Export](#) ▼

[Outline](#)

or

[Purchase](#)

[Recommended articles](#)
[Citing articles \(0\)](#)

This work was supported by Taipei Medical University and National Science Council (MOST 106-2314-B-038-081) in Taiwan. All authors have reported that they have no relationships relevant to the contents of this paper to disclose.

[Listen to this manuscript's audio summary by JACC Editor-in-Chief Dr. Valentin Fuster.](#)
✕

* Drs. L.-N. Chien and Huang contributed equally to this study. Visit your personalized recommendations page

© 2018 by the American College of Cardiology Foundation. Published by Elsevier. [View your recommendations](#)

ELSEVIER

[About ScienceDirect](#)
[Remote access](#)
[Shopping cart](#)
[Contact and support](#)
[Terms and conditions](#)
[Privacy policy](#)

Cookies are used by this site. For more information, visit the [cookies page](#).

Copyright © 2018 Elsevier B.V. or its licensors or contributors. ScienceDirect® is a registered trademark of Elsevier B.V.

 RELX Group™