

Guardia Martínez P, et al. *Direct oral anticoagulants versus vitamin K antagonists in patients with atrial fibrillation and bioprosthetic valves: a systematic review and meta-analysis.* Rev Esp Cardiol.

2023

SUPPLEMENTARY DATA

STUDY SEARCH

(anticoagulation) OR (anticoagulants) OR (anticoagulant) OR (direct oral anticoagulants) OR (rivaroxaban) OR (edoxaban) OR (apixaban) OR (dabigatran) AND (bioprosthesis) OR (bioprosthetic valve) OR (bioprosthetic valves) OR (transcatheter aortic valve) AND (atrial fibrillation)

Table 1 of the supplementary data. Quality assessment based on the Newcastle-Ottawa Scale¹ (cohort studies)

Study	Selection				Comparability	Outcome			NOS score
	Representativeness of exposed cohort	Selection of the nonexposed cohort	Ascertainment of exposure	Absence of outcome at start of study	Comparability of cohorts	Outcome assessment	Length of follow-up	Adequacy of follow-up of cohorts	
Kawashima et al. ²	1	1	1	1	1	0	1	1	7
Izumi et al. ³	1	1	1	1	2	1	1	1	9
Jocheim et al. ⁴	1	1	1	1	1	1	1	0	7
Mannacio et al. ⁵	1	1	1	1	2	1	1	1	9
Tanawuttiwat et al. ⁶	1	1	1	1	2	1	1	1	9
Butt et al. ⁷	1	1	1	0	1	1	1	1	7
Duan et al. ⁸	1	1	1	1	2	1	1	1	9
Russo et al. ⁹	1	1	1	1	2	1	1	1	9

NOS. Newcastle-Ottawa Scale.
 *NOS score range is 1 to 9. 8 is considered low risk; 6-7, moderate risk; and 5, high risk.

Figure 1 of the supplementary data. Risk of bias assessment for individual studies according to the Cochrane Collaboration risk of bias 2.0 tool for randomized controlled trials.¹⁰

<u>Study ID</u>	<u>D1</u>	<u>D2</u>	<u>D3</u>	<u>D4</u>	<u>D5</u>	<u>Overall</u>
Guimarães et al. ¹¹ 2019						
Guimarães et al. ¹² 2020						
Carnicelli et al. ¹³ 2017						
Van Mieghem et al. ¹⁴ 2021						

Low risk

Some concerns

High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

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REFERENCES OF THE SUPPLEMENTARY DATA

1. Luchini C, Stubbs B, Solmi M, Veronese N. Assessing the quality of studies in meta-analyses: Advantages and limitations of the Newcastle Ottawa Scale. *World J Metaanal.* 2017;5:80.
2. Kawashima H, Watanabe Y, Hioki H, et al. Direct Oral Anticoagulants Versus Vitamin K Antagonists in Patients With Atrial Fibrillation After TAVR. *JACC Cardiovasc Interv.* 2020;13:2587-2597.
3. Izumi C, Miyake M, Fujita T, et al. Antithrombotic Therapy for Patients With Atrial Fibrillation and Bioprosthetic Valves - Real-World Data From the Multicenter, Prospective, Observational BPV-AF Registry. *Circ J.* 2022;86:440-448.
4. Jochheim D, Barbanti M, Capretti G, et al. Oral Anticoagulant Type and Outcomes After Transcatheter Aortic Valve Replacement. *JACC Cardiovasc Interv.* 2019;12:1566-1576.
5. Mannacio VA, Mannacio L, Antignano A, et al. New Oral Anticoagulants Versus Warfarin in Atrial Fibrillation After Early Postoperative Period in Patients With Bioprosthetic Aortic Valve. *Ann Thorac Surg.* 2022;113:75-82.
6. Tanawuttiwat T, Stebbins A, Marquis-Gravel G, Vemulapalli S, Kosinski AS, Cheng A. Use of Direct Oral Anticoagulant and Outcomes in Patients With Atrial Fibrillation after Transcatheter Aortic Valve Replacement: Insights From the STS/ACC TVT Registry. *J Am Heart Assoc.* 2022;11(1).
7. Butt JH, De Backer O, Olesen JB, et al. Vitamin K antagonists vs. direct oral anticoagulants after transcatheter aortic valve implantation in atrial fibrillation. *Eur Heart J Cardiovasc Pharmacother.* 2021;7:11-19.
8. Duan L, Doctor JN, Adams JL, et al. Comparison of Direct Oral Anticoagulants Versus Warfarin in Patients With Atrial Fibrillation and Bioprosthetic Heart Valves. *Am J Cardiol.* 2021;146:22-28.

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9. Russo V, Carbone A, Attena E, et al. Clinical Benefit of Direct Oral Anticoagulants Versus Vitamin K Antagonists in Patients with Atrial Fibrillation and Bioprosthetic Heart Valves. *Clin Ther.* 2019;41:2549-2557.
10. Sterne JAC, Savović J, Page MJ, et al. RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ.* 2019;366:l4898.
11. Guimarães PO, Pokorney SD, Lopes RD, et al. Efficacy and safety of apixaban vs warfarin in patients with atrial fibrillation and prior bioprosthetic valve replacement or valve repair: Insights from the ARISTOTLE trial. *Clin Cardiol.* 2019;42:568-571.
12. Guimarães HP, de Barros E Silva PGM, Liporace IL, et al. A randomized clinical trial to evaluate the efficacy and safety of rivaroxaban in patients with bioprosthetic mitral valve and atrial fibrillation or flutter: Rationale and design of the RIVER trial. *Am Heart J.* 2021;231:128-136.
13. Carnicelli AP, De Caterina R, Halperin JL, et al. Edoxaban for the Prevention of Thromboembolism in Patients With Atrial Fibrillation and Bioprosthetic Valves. *Circulation.* 2017;135:1273-1275.
14. Van Mieghem NM, Unverdorben M, Hengstenberg C, et al. Edoxaban versus Vitamin K Antagonist for Atrial Fibrillation after TAVR. *N Engl J Med.* 2021;385:2150-2160.