

# Clinical trials of direct factor Xa inhibitors for atrial fibrillation in all type of patients

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## 1 oral factor Xa inhibitors

Trial	Treatments	Patients	Trials design and methods
<b>edoxaban low dose vs warfarin standard dose</b>			
<b>ENGAGE-AF TIMI 48 Low dose , 2013</b> [NCT00781391] n=7034/7036 follow-up: 2.8 years	edoxaban xxx once daily versus warfarin (INR 2-3)	AF patients (CHADS2 >=2)	double blind 46 countries
<b>apixaban vs aspirin</b>			
<b>AVERROES , 2011</b> [NCT00496769] n=2808/2791 follow-up: maximum 21 months	apixaban 5 mg (or 2.5 mg) twice daily versus aspirin 81-324 md daily	patients with atrial fibrillation who have failed or are unsuitable for vitamin K antagonist treatment	Parallel groups double blind 36 countries
<b>apixaban vs warfarin standard dose</b>			
<b>ARISTOTLE , 2011</b> [NCT00412984] n=9120/9081 follow-up: 1.8 yrs (median)	apixaban 5mg twice daily versus warfarin adjusted for an INR between 2 and 3	subjects with atrial fibrillation and risk factors for stroke	Parallel groups double blind 39 countries
<b>phase 2 apixaban unpublished</b> [NCT00787150] n=222 follow-up: 12 weeks	apixaban 5 or 2.5 mg twice daily versus warfarin	patient with non valvular AF	Parallel groups double blind
<b>edoxaban vs warfarin standard dose</b>			
<b>Weitz (edoxaban phase 2) unpublished</b> [NCT00504556] n=1146 follow-up: 3 months	Four Fixed Dose Regimens of edoxaban (DU-176b) versus warfarin	Subjects With Non- Valvular Atrial Fibrillation	Parallel groups double-blind USA, Europe, South and central america,
<b>phase 2 edoxaban unpublished</b> [NCT00806624] n=NA follow-up:	edoxaban (DU-176b) versus warfarin	male and female subjects aged 18 to 80 years, inclusive, with non-valvular AF and a CHADS2 Score of at least 1	Parallel groups double-blind China
<b>edoxaban high dose vs warfarin standard dose</b>			

continued...

Trial	Treatments	Patients	Trials design and methods
<b>ENGAGE-AF TIMI 48 High dose , 2013</b> [NCT00781391] n=7035/7036 follow-up: 2.8 years	edoxaban 60mg once daily versus warfarin (INR 2-3)	AF patients (CHADS2 >=2)	Parallel groups double blind 46 countries
<b>rivaroxaban vs warfarin standard dose</b>			
<b>ROCKET-AF , 2010</b> [NCT00403767] n=7131/7133 follow-up: median 1.94 y	Rivaroxaban 20mg p.o. once daily versus Warfarin p.o. once daily titrated to a target INR of 2.5 (range 2.0 to 3.0, inclusive)	Subjects With Non-Valvular Atrial Fibrillation	Parallel groups double blind 45 countries
<b>ROCKET J ongoing</b> [NCT00494871] n=NA follow-up:	Rivaroxaban versus warfarin	-	parallel groups double-blind Japan
<b>YM150 vs warfarin standard dose</b>			
<b>phase 2 YM150 unpublished</b> [NCT00448214] n=NA follow-up:	YM150 ASTELLAS versus warfarin	subjects with non-valvular atrial fibrillation	Parallel groups open Australia
<b>OPAL-2 ongoing</b> [NCT00938730] n=NA follow-up:	YM150 versus warfarin	subjects with non-valvular atrial fibrillation	double-blind Australia

## References

### ENGAGE-AF TIMI 48 Low dose, 2013:

Giugliano RP, Ruff CT, Braunwald E, Murphy SA, Wiviott SD, Halperin JL, Waldo AL, Ezekowitz MD, Weitz JI, Pinar J, Ruzyllo W, Ruda M, Koretsune Y, Betcher J, Shi M, Grip LT, Patel SP, Patel I, Hanyok JJ, Mercuri M, Antman EM Edoxaban versus warfarin in patients with atrial fibrillation. *N Engl J Med* 2013 Nov 28;369:2093-104 [24251359]

Ruff CT, Giugliano RP, Antman EM, Crugnale SE, Bocanegra T, Mercuri M, Hanyok J, Patel I, Shi M, Salazar D, McCabe CH, Braunwald E Evaluation of the novel factor Xa inhibitor edoxaban compared with warfarin in patients with atrial fibrillation: design and rationale for the Effective aNticoagulation with factor xA next GEneration in Atrial Fibrillation-Thrombolysis In Myocardial Infarction study 48 (ENGAGE AF-TIMI 48). *Am Heart J* 2010;160:635-41 [20934556] 10.1016/j.ahj.2010.06.042

### AVERROES, 2011:

Eikelboom JW, O'Donnell M, Yusuf S, Diaz R, Flaker G, Hart R, Hohnloser S, Joyner C, Lawrence J, Pais P, Pogue J, Synhorst D, Connolly SJ Rationale and design of AVERROES: apixaban versus acetylsalicylic acid to prevent stroke in atrial fibrillation patients who have failed or are unsuitable for vitamin K antagonist treatment. *Am Heart J* 2010;159:348-353.e1 [20211294] 10.1016/j.ahj.2009.08.026

Connolly SJ, Eikelboom J, Joyner C, Diener HC, Hart R, Golitsyn S, Flaker G, Avezum A, Hohnloser SH, Diaz R, Talajic M, Zhu J, Pais P, Budaj A, Parkhomenko A, Jansky P, Commerford P, Tan RS, Sim KH, Lewis BS, Van Mieghem W, Lip GY, Kim JH, Lanan-Zanetti F Apixaban in Patients with Atrial Fibrillation. *N Engl J Med* 2011 Feb 10;: [21309657] 10.1056/NEJMoa1007432

### ARISTOTLE, 2011:

Lopes RD, Alexander JH, Al-Khatib SM, Ansell J, Diaz R, Easton JD, Gersh BJ, Granger CB, Hanna M, Horowitz J, Hylek EM, McMurray JJ, Verheugt FW, Wallentin L Apixaban for reduction in stroke and other Thromboembolic events in atrial fibrillation (ARISTOTLE) trial: design and rationale. *Am Heart J* 2010;159:331-9 [20211292] 10.1016/j.ahj.2009.07.035

Granger CB, Alexander JH, McMurray JJ, Lopes RD, Hylek EM, Hanna M, Al-Khalidi HR, Ansell J, Atar D, Avezum A, Bahit MC, Diaz R, Easton JD, Ezekowitz JA, Flaker G, Garcia D, Ghalibaf M, Gersh BJ, Golitsyn S, Goto S, Hermosillo AG, Hohnloser SH, Horowitz J Apixaban versus Warfarin in Patients with Atrial Fibrillation. *N Engl J Med* 2011

Aug 27;: [21870978] [10.1056/NEJMoa1107039](https://doi.org/10.1056/NEJMoa1107039)

**phase 2 apixaban, 0:**

**Weitz (edoxaban phase 2), 0:**

**phase 2 edoxaban, 0:**

**ENGAGE-AF TIMI 48 High dose, 2013:**

Ruff CT, Giugliano RP, Antman EM, Crugnale SE, Bocanegra T, Mercuri M, Hanyok J, Patel I, Shi M, Salazar D, McCabe CH, Braunwald E Evaluation of the novel factor Xa inhibitor edoxaban compared with warfarin in patients with atrial fibrillation: design and rationale for the Effective aNticoagulation with factor xA next GEneration in Atrial Fibrillation-Thrombolysis In Myocardial Infarction study 48 (ENGAGE AF-TIMI 48). *Am Heart J* 2010;160:635-41 [20934556] [10.1016/j.ahj.2010.06.042](https://doi.org/10.1016/j.ahj.2010.06.042)

Giugliano RP, Ruff CT, Braunwald E, Murphy SA, Wiviott SD, Halperin JL, Waldo AL, Ezekowitz MD, Weitz JI, pinar J, Ruzylo W, Ruda M, Koretsune Y, Betcher J, Shi M, Grip LT, Patel SP, Patel I, Hanyok JJ, Mercuri M, Antman EM Edoxaban versus warfarin in patients with atrial fibrillation. *N Engl J Med* 2013 Nov 28;369:2093-104 [24251359]

**ROCKET-AF, 2010:**

Rivaroxaban-once daily, oral, direct factor Xa inhibition compared with vitamin K antagonism for prevention of stroke and Embolism Trial in Atrial Fibrillation: rationale and design of the ROCKET AF study. *Am Heart J* 2010;159:340-347.e1 [20211293] [10.1016/j.ahj.2009.11.025](https://doi.org/10.1016/j.ahj.2009.11.025)

Patel MR, Mahaffey KW, Garg J, Pan G, Singer DE, Hacke W, Breithardt G, Halperin JL, Hankey GJ, Piccini JP, Becker RC, Nessel CC, Paolini JF, Berkowitz SD, Fox KA, Califf RM Rivaroxaban versus Warfarin in Nonvalvular Atrial Fibrillation. *N Engl J Med* 2011 Aug 10;: [21830957] [10.1056/NEJMoa1009638](https://doi.org/10.1056/NEJMoa1009638)

**ROCKET J, :**

**phase 2 YM150, 0:**

**OPAL-2, :**

## 2 About TrialResults-center.org

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Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

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