

# Clinical trials of ticagrelor

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## 1 post myocardial infarction

Trial	Treatments	Patients	Trials design and methods
<b>ticagrelor vs placebo (on top aspirin)</b>			
<b>PEGASUS 60mg , 2015</b> [NCT01225562] n=7045/7067 follow-up: 2.75 y (median)	ticagrelor at a dose of 60 mg twice daily versus placebo	patients who had had a myocardial infarction 1 to 3 years earlier	Parallel groups double-blind
<b>PEGASUS 90mg , 2015</b> [NCT01225562] n=7050/7067 follow-up: 2.75 y (median)	-	patients who had had a myocardial infarction 1 to 3 years earlier	double-blind

More details and results :

- antiplatelets drug for post myocardial infarction in all type of patient at <http://www.trialresultscenter.org/go-Q277>

## References

### **PEGASUS 60mg, 2015:**

Bonaca MP, Bhatt DL, Braunwald E, Cohen M, Steg PG, Storey RF, Held P, Jensen EC, Sabatine MS Design and rationale for the Prevention of Cardiovascular Events in Patients With Prior Heart Attack Using Ticagrelor Compared to Placebo on a Background of Aspirin-Thrombolysis in Myocardial Infarction 54 (PEGASUS-TIMI 54) trial. Am Heart J 2014;167:437-444.e5 [24655690]

Bonaca MP, Bhatt DL, Cohen M, Steg PG, Storey RF, Jensen EC, Magnani G, Bansilal S, Fish MP, Im K, Bengtsson O, Ophuis TO, Budaj A, Theroux P, Ruda M, Hamm C, Goto S, Spinar J, Nicolau JC, Kiss RG, Murphy SA, Wiviott SD, Held P, Braunwald E, Sabatine MS Long-Term Use of Ticagrelor in Patients with Prior Myocardial Infarction. N Engl J Med 2015 Mar 14;: [25773268] 10.1056/NEJMoa1500857

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## 2 cardiovascular prevention

Trial	Treatments	Patients	Trials design and methods
<b>ticagrelor vs clopidogrel</b>			
<b>EUCLID , 2016</b> [NCT01732822] n=NA follow-up: 30 months (median)	ticagrelor (90 mg twice daily) versus clopidogrel (75 mg once daily)	patients with symptomatic peripheral artery disease	
<b>ticagrelor vs placebo (on top aspirin)</b>			
<b>PEGASUS 60mg , 2015</b> [NCT01225562] n=7045/7067 follow-up: 2.75 y (median)	ticagrelor at a dose of 60 mg twice daily versus placebo	patients who had had a myocardial infarction 1 to 3 years earlier	Parallel groups double-blind
<b>PEGASUS 90mg , 2015</b> [NCT01225562] n=7050/7067 follow-up: 2.75 y (median)	-	patients who had had a myocardial infarction 1 to 3 years earlier	double-blind

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More details and results :

- antiplatelets drug for cardiovascular prevention in all type of patients at <http://www.trialresultscenter.org/go-Q226>
- antiplatelets drug for cardiovascular prevention in secondary prevention in patients with intermittent claudication at <http://www.trialresultscenter.org/go-Q275>
- antiplatelets drug for cardiovascular prevention in secondary prevention in patients with CAD at <http://www.trialresultscenter.org/go-Q276>
- antiplatelets drug for cardiovascular prevention in secondary prevention at <http://www.trialresultscenter.org/go-Q708>

## References

### EUCLID, 2016:

Jones WS, Baumgartner I, Hiatt WR, Heizer G, Conte MS, White CJ, Berger JS, Held P, Katona BG, Mahaffey KW, Norgren L, Blomster J, Millegrd M, Reist C, Patel MR, Fowkes GR Ticagrelor Compared With Clopidogrel in Patients with Prior Lower Extremity Revascularization for Peripheral Artery Disease. *Circulation* 2016 Nov 13; [27840336] [10.1161/CIRCULATIONAHA.116.025880](https://doi.org/10.1161/CIRCULATIONAHA.116.025880)

Hiatt WR, Fowkes FG, Heizer G, Berger JS, Baumgartner I, Held P, Katona BG, Mahaffey KW, Norgren L, Jones WS, Blomster J, Millegrd M, Reist C, Patel MR Ticagrelor versus Clopidogrel in Symptomatic Peripheral Artery Disease. *N Engl J Med* 2017;376:32-40 [27959717]

### PEGASUS 60mg, 2015:

Bonaca MP, Bhatt DL, Braunwald E, Cohen M, Steg PG, Storey RF, Held P, Jensen EC, Sabatine MS Design and rationale for the Prevention of Cardiovascular Events in Patients With Prior Heart Attack Using Ticagrelor Compared to Placebo on a Background of Aspirin-Thrombolysis in Myocardial Infarction 54 (PEGASUS-TIMI 54) trial. *Am Heart J* 2014;167:437-444.e5 [24655690]

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Bonaca MP, Bhatt DL, Cohen M, Steg PG, Storey RF, Jensen EC, Magnani G, Bansilal S, Fish MP, Im K, Bengtsson O, Ophuis TO, Budaj A, Theroux P, Ruda M, Hamm C, Goto S, Spinar J, Nicolau JC, Kiss RG, Murphy SA, Wiviott SD, Held P, Braunwald E, Sabatine MS Long-Term Use of Ticagrelor in Patients with Prior Myocardial Infarction. *N Engl J Med* 2015 Mar 14;: [25773268] 10.1056/NEJMoa1500857

## 3 acute coronary syndrome

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Trial	Treatments	Patients	Trials design and methods
<b>ticagrelor vs clopidogrel</b>			
PLATO , 2009 [NCT00391872] n=9333/9291 follow-up: 1 y	ticagrelor 90mg twice daily versus clopidogrel 75mg once daily	patients with an acute coronary syndrome, with or without ST-segment elevation (onset of symptoms within the previous 24h).	Parallel groups double blind 43 countries
DISPERSE-2 (90mg) , 2007  n=334/327 follow-up: 12 weeks	ticagrelor 90 mg twice daily versus clopidogrel	patients with NSTEMI-ACS, treated with aspirin and standard therapy for ACS	Parallel groups double blind

More details and results :

- antithrombotics for acute coronary syndrome in all type of patients at <http://www.trialresultscenter.org/go-Q24>
- antiplatelets drug for acute coronary syndrome in ACS (excluding AMI) at <http://www.trialresultscenter.org/go-Q169>
- antiplatelets drug for acute coronary syndrome in all type of patients at <http://www.trialresultscenter.org/go-Q346>
- New P2Y12 Inhibitors for acute coronary syndrome in all type of patients at <http://www.trialresultscenter.org/go-Q455>

## References

### PLATO, 2009:

James S, Akerblom A, Cannon CP, Emanuelsson H, Husted S, Katus H, Skene A, Steg PG, Storey RF, Harrington R, Becker R, Wallentin L Comparison of ticagrelor, the first reversible oral P2Y(12) receptor antagonist, with clopidogrel in patients with acute coronary syndromes: Rationale, design, and baseline characteristics of the PLATElet inhibition and patient Outcomes (PLATO) trial. *Am Heart J* 2009;157:599-605 [19332184]

Wallentin L, Becker RC, Budaj A, Cannon CP, Emanuelsson H, Held C, Horrow J, Husted S, James S, Katus H, Mahaffey KW, Scirica BM, Skene A, Steg PG, Storey RF, Harrington RA Ticagrelor versus Clopidogrel in Patients with Acute Coronary Syndromes. *N Engl J Med* 2009 Aug 30;: [19717846] 10.1056/NEJMoa0904327

Bellemain-Appaix A, Brieger D, Beygui F, Silvain J, Pena A, Cayla G, Barthlmy O, Collet JP, Montalescot G New P2Y12 Inhibitors Versus Clopidogrel in Percutaneous Coronary Intervention A Meta-Analysis. *J Am Coll Cardiol* 2010 Aug 18;: [20800407] 10.1016/j.jacc.2010.07.012

### DISPERSE-2 (90mg), 2007:

Cannon CP, Husted S, Harrington RA, Scirica BM, Emanuelsson H, Peters G, Storey RF Safety, tolerability, and initial efficacy of AZD6140, the first reversible oral adenosine diphosphate receptor antagonist, compared with clopidogrel, in patients with non-ST-segment elevation acute coronary syndrome: primary results of the DISPERSE-2 trial. *J Am Coll Cardiol* 2007;50:1844-51 [17980250]

Storey RF, Husted S, Harrington RA, Heptinstall S, Wilcox RG, Peters G, Wickens M, Emanuelsson H, Gurbel P, Grande P, Cannon CP Inhibition of platelet aggregation by AZD6140, a reversible oral P2Y12 receptor antagonist, compared with clopidogrel in patients with acute coronary syndromes. *J Am Coll Cardiol* 2007;50:1852-6 [17980251]

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## 4 peripheral vascular diseases

Trial	Treatments	Patients	Trials design and methods
<b>ticagrelor vs clopidogrel</b>			
EUCLID , 2016 [NCT01732822] n=NA follow-up: 30 months (median)	ticagrelor (90 mg twice daily) versus clopidogrel (75 mg once daily)	patients with symptomatic peripheral artery disease	

More details and results :

- antiplatelets drug for peripheral vascular diseases in all type of patient at <http://www.trialresultscenter.org/go-Q278>

## References

### EUCLID, 2016:

Jones WS, Baumgartner I, Hiatt WR, Heizer G, Conte MS, White CJ, Berger JS, Held P, Katona BG, Mahaffey KW, Norgren L, Blomster J, Millegrd M, Reist C, Patel MR, Fowkes GR Ticagrelor Compared With Clopidogrel in Patients with Prior Lower Extremity Revascularization for Peripheral Artery Disease. *Circulation* 2016 Nov 13;: [27840336] 10.1161/CIRCULATIONAHA.116.025880

Hiatt WR, Fowkes FG, Heizer G, Berger JS, Baumgartner I, Held P, Katona BG, Mahaffey KW, Norgren L, Jones WS, Blomster J, Millegrd M, Reist C, Patel MR  
Ticagrelor versus Clopidogrel in Symptomatic Peripheral Artery Disease. N Engl J Med 2017;376:32-40 [[27959717](#)]

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