

# Clinical trials of telmisartan

TrialResults-center [www.trialresultscenter.org](http://www.trialresultscenter.org)

## 1 post stroke

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs placebo</b>			
<a href="#">PROFESS , 2008</a> n=NA follow-up:	telmisartan 80 mg/d versus placebo	-	

More details and results :

- anti hypertensive agents for post stroke in all type of patients at <http://www.trialresultscenter.org/go-Q410>

## References

PROFESS, 2008:

## 2 hypertension

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs placebo</b>			
<a href="#">PROPHESSE , 2008</a> [NCT00153062] n=10146/10186 follow-up: 2.5 y	telmisartan 80 mg daily versus placebo	patients who recently had an ischemic stroke	Factorial plan double blind 35 countries
<a href="#">Cice et al , 2006</a> n=151/152	Telmisartan 80 mg/day versus matched placebo	-	
<b>telmisartan vs enalapril</b>			
<a href="#">DETAIL , 2004</a> n=120/130 follow-up: 5 year	telmisartan 80 mg daily versus enalapril 20 mg daily	subjects with type 2 diabetes and early nephropathy	Parallel groups double-blind

continued...

<b>Trial</b>	<b>Treatments</b>	<b>Patients</b>	<b>Trials design and methods</b>
<b>DETAIL , 2004</b> n=120/130 follow-up: 5 y	Telmisartan 80 mg daily versus Enalapril 20 mg daily	patients with type 2 diabetes and early nephropathy	Parallel groups double-blind
<b>Telmisartan vs Ramipril</b>			
<b>ONTARGET/Tel , 2008</b> n=8542/8576 follow-up: 4.7 y	Telmisartan 80 mg daily versus Ramipril 10 mg daily	patients with vascular disease or high-risk diabetes	Parallel groups double-blind
<b>Telmisartan + ramipril vs Ramipril</b>			
<b>ONTARGET/Tel+Ram , 2008</b> n=8502/8576 follow-up: 4.7 y	Telmisartan + ramipril versus Ramipril	patients with vascular disease or high-risk diabetes	Parallel groups double-blind

More details and results :

- anti hypertensive agents for hypertension in diabetic patients at <http://www.trialresultscenter.org/go-Q10>
- anti hypertensive agents for hypertension in all type of patient at <http://www.trialresultscenter.org/go-Q13>
- anti hypertensive agents for hypertension in nephropathy at <http://www.trialresultscenter.org/go-Q19>
- anti hypertensive agents for hypertension in post stroke at <http://www.trialresultscenter.org/go-Q20>
- angiotensin-receptor blockers for hypertension in all diseases requiring ACEi (HF, CHD, HT,...) at <http://www.trialresultscenter.org/go-Q125>
- anti hypertensive agents for hypertension in patients undergoing dialysis at <http://www.trialresultscenter.org/go-Q281>

## References

### PROPESS, 2008:

Yusuf S, Diener HC, Sacco RL, Cotton D, Ounpuu S, Lawton WA, Palesch Y, Martin RH, Albers GW, Bath P, Bornstein N, Chan BP, Chen ST, Cunha L, Dahlf B, De Keyser J, Donnan GA, Estol C, Gorelick P, Gu V, Hermansson K, Hilbrich L, Kaste M, Lu C, Machnig T, — N Engl J Med 2008;359:1225-37 [[18753639](https://doi.org/10.1056/NEJMoa0804593)]  
[10.1056/NEJMoa0804593](https://doi.org/10.1056/NEJMoa0804593)

### Cice et al, 2006:

### DETAIL, 2004:

Barnett AH, Bain SC, Bouter P, Karlberg B, Madsbad S, Jervell J, Mustonen J Angiotensin-receptor blockade versus converting-enzyme inhibition in type 2 diabetes and nephropathy. N Engl J Med 2004;351:1952-61 [[15516696](https://doi.org/10.1056/NEJMoa042274)] [10.1056/NEJMoa042274](https://doi.org/10.1056/NEJMoa042274)

### DETAIL, 2004:

Barnett AH, Bain SC, Bouter P, Karlberg B, Madsbad S, Jervell J, Mustonen J Angiotensin-receptor blockade versus converting-enzyme inhibition in type 2 diabetes and nephropathy. N Engl J Med 2004;351:1952-61 [15516696]

#### ONTARGET/Tel, 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008;358:1547-59 [18378520]

Verdecchia P, Sleight P, Mancina G, Fagard R, Trimarco B, Schmieder RE, Kim JH, Jennings G, Jansky P, Chen JH, Liu L, Gao P, Probstfield J, Teo K, Yusuf S Effects of telmisartan, ramipril, and their combination on left ventricular hypertrophy in individuals at high vascular risk in the Ongoing Telmisartan Alone and in Combination With Ramipril Global End Point Trial and the Telmisartan Randomized Assessment Study in ACE Intolerant Subjects With Cardiovascular Disease. Circulation 2009;120:1380-9 [19770395]

#### ONTARGET/Tel+Ram, 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008;358:1547-59 [18378520]

Verdecchia P, Sleight P, Mancina G, Fagard R, Trimarco B, Schmieder RE, Kim JH, Jennings G, Jansky P, Chen JH, Liu L, Gao P, Probstfield J, Teo K, Yusuf S Effects of telmisartan, ramipril, and their combination on left ventricular hypertrophy in individuals at high vascular risk in the Ongoing Telmisartan Alone and in Combination With Ramipril Global End Point Trial and the Telmisartan Randomized Assessment Study in ACE Intolerant Subjects With Cardiovascular Disease. Circulation 2009;120:1380-9 [19770395]

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### 3 heart failure

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs enalapril</b>			
<b>REPLACE , 2001</b> n=301/77 follow-up: 12 wk	Telmisartan, 10 mg, 20mg, 40mg, 80mg daily versus Enalapril, 10 mg twice daily	ambulatory patients at least 21 years of age, in sinus rhythm, with chronic moderate symptomatic heart failure (New York Heart Association class III/IV) and a left ventricular ejection fraction of 40% or lower	Parallel groups Double blind

More details and results :

- angiotensin-receptor blockers for heart failure in all type of patients at <http://www.trialresultscenter.org/go-Q65>
- angiotensin-receptor blockers for heart failure in patients already receiving ACE inhibitor at <http://www.trialresultscenter.org/go-Q68>

#### References

**REPLACE, 2001:**

Dunselman PH Effects of the replacement of the angiotensin converting enzyme inhibitor enalapril by the angiotensin II receptor blocker telmisartan in patients with congestive heart failure. The replacement of angiotensin converting enzyme inhibition (REPLACE) investigators. Int J Cardiol 2001 Feb;77:131-8; discussion 139-40 [11182175]

## 4 miscellaneous

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs placebo</b>			
<b>TRANSCEND , 2008</b> [NCT00153101] n=2954/2972 follow-up: median 56 months (IQR 51-64)	telmisartan 80 mg/day versus placebo	high-risk patients intolerant to angiotensin-converting enzyme inhibitors	Parallel groups double blind 40 countries
<b>PROPHESSE , 2008</b> [NCT00153062] n=10146/10186 follow-up: 2.5 y	telmisartan 80 mg daily versus placebo	patients who recently had an ischemic stroke	Factorial plan double blind 35 countries
<b>telmisartan vs enalapril</b>			
<b>DETAIL , 2004</b> n=120/130 follow-up: 5 year	telmisartan 80 mg daily versus enalapril 20 mg daily	subjects with type 2 diabetes and early nephropathy	Parallel groups double-blind
<b>telmisartan vs ramipril</b>			
<b>ONTARGET (telmisartan alone) , 2008</b> [NCT00153101] n=8542/8576 follow-up: 4.7y	telmisartan 80mg daily versus ramipril 10 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries
<b>telmisartan + ramipril vs ramipril</b>			
<b>ONTARGET (association vs ramipril) , 2008</b> [NCT00153101] n=8502/8576 follow-up: 4.7y	telmisartan 80mg + ramipril 10mg daily versus ramipril 10 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries
<b>telmisartan + ramipril vs telmisartan</b>			
<b>ONTARGET (association vs telmisartan) , 2008</b> [NCT00153101] n=8502/8542 follow-up: 4.7y	telmisartan 80mg + ramipril 10mg daily versus telmisartan 80 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries

More details and results :

- angiotensin-receptor blockers for miscellaneous in all type of patients at <http://www.trialresultscenter.org/go-Q425>

## References

### TRANSCEND, 2008:

### PROPHESSE, 2008:

Yusuf S, Diener HC, Sacco RL, Cotton D, Ounpuu S, Lawton WA, Palesch Y, Martin RH, Albers GW, Bath P, Bornstein N, Chan BP, Chen ST, Cunha L, Dahlf B, De Keyser J, Donnan GA, Estol C, Gorelick P, Gu V, Hermansson K, Hilbrich L, Kaste M, Lu C, Machnig T, — N Engl J Med 2008;359:1225-37 [[18753639](#)] [10.1056/NEJMoa0804593](#)

### DETAIL, 2004:

Barnett AH, Bain SC, Bouter P, Karlberg B, Madsbad S, Jervell J, Mustonen J Angiotensin-receptor blockade versus converting-enzyme inhibition in type 2 diabetes and nephropathy. N Engl J Med 2004;351:1952-61 [[15516696](#)] [10.1056/NEJMoa042274](#)

### ONTARGET (telmisartan alone), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)] [10.1056/NEJMoa0801317](#)

Verdecchia P, Sleight P, Mancia G, Fagard R, Trimarco B, Schmieder RE, Kim JH, Jennings G, Jansky P, Chen JH, Liu L, Gao P, Probstfield J, Teo K, Yusuf S Effects of telmisartan, ramipril, and their combination on left ventricular hypertrophy in individuals at high vascular risk in the Ongoing Telmisartan Alone and in Combination With Ramipril Global End Point Trial and the Telmisartan Randomized Assessment Study in ACE Intolerant Subjects With Cardiovascular Disease. Circulation 2009;120:1380-9 [[19770395](#)]

### ONTARGET (association vs ramipril), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)]

### ONTARGET (association vs telmisartan), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)]

## 5 diabetes type 2

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs placebo</b>			
<a href="#">PROFESS , 2008</a> n=2840/2903 follow-up: 2.4y	80 mg telmisartan once daily versus placebo	-	Parallel groups double-blind

More details and results :

- anti hypertensive agents for diabetes type 2 in patients with or without hypertension at <http://www.trialresultscenter.org/go-Q414>

## References

### PROFESS, 2008:

Diener HC, Sacco RL, Yusuf S, Cotton D, Ounpuu S, Lawton WA, Palesch Y, Martin RH, Albers GW, Bath P, Bornstein N, Chan BP, Chen ST, Cunha L, Dahlf B, De Keyser J, Donnan GA, Estol C, Gorelick P, Gu V, Hermansson K, Hilbrich L, Kaste M, Lu C, Machnig T, Effects of aspirin plus extended-release dipyridamole versus clopidogrel and telmisartan on disability and cognitive function after recurrent stroke in patients with ischaemic stroke in the Prevention Regimen for Effectively Avoiding Second Strokes (PRoFESS) trial: a double-blind, active and placebo-controlled study. *Lancet Neurol* 2008;7:875-84 [[18757238](#)] [10.1016/S1474-4422\(08\)70198-4](#)

## 6 patients at high risk for cardiovascular events

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs placebo</b>			
<a href="#">TRANSCEND , 2008</a> [NCT00153101] n=2954/2972 follow-up: median 56 months (IQR 51-64)	telmisartan 80 mg/day versus placebo	high-risk patients intolerant to angiotensin-converting enzyme inhibitors	Parallel groups double blind 40 countries
<a href="#">PROFESS , 2008</a> [NCT00153062] n=10146/10186 follow-up: 2.5 y	telmisartan 80 mg daily versus placebo	patients who recently had an ischemic stroke	Factorial plan double blind 35 countries
<b>telmisartan vs ramipril</b>			
<a href="#">ONTARGET (telmisartan alone) , 2008</a> [NCT00153101] n=8542/8576 follow-up: 4.7y	telmisartan 80mg daily versus ramipril 10 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries
<b>telmisartan + ramipril vs ramipril</b>			
<a href="#">ONTARGET (association vs ramipril) , 2008</a> [NCT00153101] n=8502/8576 follow-up: 4.7y	telmisartan 80mg + ramipril 10mg daily versus ramipril 10 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries
<b>telmisartan + ramipril vs telmisartan</b>			

continued...

Trial	Treatments	Patients	Trials design and methods
ONTARGET (association vs telmisartan) , 2008 [NCT00153101] n=8502/8542 follow-up: 4.7y	telmisartan 80mg + ramipril 10mg daily versus telmisartan 80 mg daily	patients patients with coronary, peripheral, or cerebrovascular disease or diabetes with end-organ damage	Parallel groups double blind 40 countries

More details and results :

- angiotensin-receptor blockers for patients at high risk for cardiovascular events in all type of patients at <http://www.trialresultscenter.org/go-Q97>
- angiotensin-Converting Enzyme Inhibitors for patients at high risk for cardiovascular events in all type of patients at <http://www.trialresultscenter.org/go-Q98>
- inhibition of the renin-angiotensin system (ACEI or ARB) for patients at high risk for cardiovascular events in all type of patients at <http://www.trialresultscenter.org/go-Q157>
- angiotensin-receptor blockers for patients at high risk for cardiovascular events in patients intolerant to ACE inhibitors at <http://www.trialresultscenter.org/go-Q175>

## References

### TRANSCEND, 2008:

### PROPESS, 2008:

Yusuf S, Diener HC, Sacco RL, Cotton D, Ounpuu S, Lawton WA, Palesch Y, Martin RH, Albers GW, Bath P, Bornstein N, Chan BP, Chen ST, Cunha L, Dahlf B, De Keyser J, Donnan GA, Estol C, Gorelick P, Gu V, Hermansson K, Hilbrich L, Kaste M, Lu C, Machnig T, — N Engl J Med 2008;359:1225-37 [[18753639](#)]  
[10.1056/NEJMoa0804593](#)

### ONTARGET (telmisartan alone), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)] [10.1056/NEJMoa0801317](#)

Verdecchia P, Sleight P, Mancia G, Fagard R, Trimarco B, Schmieder RE, Kim JH, Jennings G, Jansky P, Chen JH, Liu L, Gao P, Probstfield J, Teo K, Yusuf S Effects of telmisartan, ramipril, and their combination on left ventricular hypertrophy in individuals at high vascular risk in the Ongoing Telmisartan Alone and in Combination With Ramipril Global End Point Trial and the Telmisartan Randomized Assessment Study in ACE Intolerant Subjects With Cardiovascular Disease. Circulation 2009;120:1380-9 [[19770395](#)]

### ONTARGET (association vs ramipril), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)]

### ONTARGET (association vs telmisartan), 2008:

Yusuf S, Teo KK, Pogue J, Dyal L, Copland I, Schumacher H, Dagenais G, Sleight P, Anderson C Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008 Apr 10;358:1547-59 [[18378520](#)]

## 7 diabetic kidney disease

Trial	Treatments	Patients	Trials design and methods
<b>telmisartan vs enalapril</b>			
<a href="#">DETAIL , 2004</a> n=120/130 follow-up: 5 year	telmisartan 80 mg daily versus enalapril 20 mg daily	subjects with type 2 diabetes and early nephropathy	Parallel groups double-blind

More details and results :

- All mechanism for diabetic kidney disease in all type of patients at <http://www.trialresultscenter.org/go-Q667>

## References

### DETAIL, 2004:

Barnett AH, Bain SC, Bouter P, Karlberg B, Madsbad S, Jervell J, Mustonen J Angiotensin-receptor blockade versus converting-enzyme inhibition in type 2 diabetes and nephropathy. N Engl J Med 2004;351:1952-61 [[15516696](#)] [10.1056/NEJMoa042274](#)

Entry terms: ramipril, Triatec, Altace, Delix, Ramace, Vesdil, Carasel, Acovil, Tritace, Zabien, telmisartan, Micardis, BIBR 277, BIBR-277, Pritor,