

## ACCOMPLISH 2008

NCT00170950

**A randomised clinical trial investigating the effect of amlodipine plus benazepril versus hydrochlorothiazide plus benazepril in patients with hypertension who were at high risk for cardiovascular events**

### 1 Treatments

	<b>Studied treatment</b>	benazepril 40mg plus amlodipine 5mg daily amlodipine dose can be increased to 10 mg daily if necessary, to attain a target blood pressure of less than 140/90 mm Hg (or a recommended target of 130/80 mm Hg for patients with diabetes or kidney disease).
[2]Opt	<b>Control treatment</b>	benazepril 40mg plus hydrochlorothiazide 12.5mg daily hydrochlorothiazide dose can be increased to 25 mg daily, if necessary, to attain a target blood pressure of less than 140/90 mm Hg (or a recommended target of 130/80 mm Hg for patients with diabetes or kidney disease).
	<b>Concomittant treatments</b>	Addition of other antihypertensive agents was permitted (excluding any calcium-channel blockers, any ACE inhibitors, any angiotensin II– receptor blockers, and any thiazide diuretics). Loop diuretics taken once daily were permitted for volume management

### 2 Patients

	<b>Patients</b>	patients with hypertension who were at high risk for cardiovascular events
	<b>Inclusion criteria</b>	history of coronary events, myocardial infarction, revascularization, or stroke; impaired renal function; peripheral arterial disease; left ventricular hypertrophy; diabetes mellitus
[2]Opt	<b>Exclusion criteria</b>	angina pectoris; symptomatic heart failure or evidence of left ventricular ejection fraction <40%; myocardial infarction, other acute coronary syndromes, or coronary revascularizations within 1 month; stroke within 3 months; hypertension that is excessively severe, known to be refractory to treatment, or known to have a secondary cause; concomitant illness, physical impairment, or mental condition that could interfere with the effective conduct of the study

### 3 Methods

<b>Blinding</b>	double blind
<b>Design</b>	Parallel groups
<b>Centers</b>	548
<b>Geographical area</b>	US, Sweden, Norway, Denmark, Finland
[2]Opt <b>Sample size</b>	11506 ( 5744 / 5762 )
<b>ArretTrt1</b>	-
<b>ArretTrt0</b>	-
<b>PeriodelInclusion</b>	oct 2003 - may 2005
<b>Hypothese</b>	Superiority

### 4 Results

Endpoint	T1	T0	d	95% CI
non fatal MI	-/5744	-/5762	NA	-
Major cardiovascular events	552/5744	679/5762	0,82	[0,72; 0,92]
Peripheral arterial disease	-/5744	-/5762	NA	-
fatal MI	-/5744	-/5762	NA	-
cardiovascular death	107/5744	134/5762	0,80	[0,62; 1,04]
End stage renal disease	-/5744	-/5762	NA	-
all cause death	236/5744	262/5762	0,90	[0,75; 1,08]
stroke (fatal non fatal)	112/5744	133/5762	0,84	[0,66; 1,09]
Diabetes onset	-/5744	-/5762	NA	-
non fatal stroke	-/5744	-/5762	NA	-
coronary heart disease	125/5744	159/5762	0,79	[0,62; 1,00]
Angina	-/5744	-/5762	NA	-
fatal stroke	-/5744	-/5762	NA	-
heart failure	-/5744	-/5762	NA	-
Coronary revascularization	334/5744	386/5762	0,87	[0,75; 1,01]

### 5 References

Jamerson K, Weber MA, Bakris GL, Dahlöf B, Pitt B, Shi V, Hester A, Gupte J, Gatlin M, Velazquez EJ Benazepril plus amlodipine or hydrochlorothiazide for hypertension in high-risk patients. N Engl J Med 2008 Dec 4;359:2417-28 [[19052124](#)]

Jamerson KA, Bakris GL, Wun CC, Dahlöf B, Lefkowitz M, Manfreda S, Pitt B, Velazquez EJ, Weber MA Rationale and design of the avoiding cardiovascular events through combination therapy in patients living with systolic hypertension (ACCOMPLISH) trial: the first randomized controlled trial to compare the clinical outcome effects of first-line combination therapies in hypertension. *Am J Hypertens* 2004;17:793-801 [[15363822](#)] [10.1016/j.amjhyper.2004.05.004](#)

## **6 Comments**