

Clinical trials of intensive blood pressure control for hypertension in non diabetic patients

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1 Treatment blood pressure target

Trial	Treatments	Patients	Trials design and methods
more intensive blood pressure lowering strategie vs less intensive blood pressure lowering strategie			
SPRINT , 2015 [NCT01206062] n=4678/4683 follow-up:	target of 120 mm Hg versus target of 140 mm Hg	high-risk hypertensive adults 50 years of age and older with one additional cardiovascular risk factor or preexisting kidney disease	Parallel groups open
Cardio-Sis , 2009 [NCT00421863] n=558/553 follow-up: 2 years	tighter control of systolic BP with a goal of <130 mm Hg versus usual control, with a goal of <140 mm Hg	nondiabetic patients with hypertension and with SBP of 150 mm Hg or higher confirmed at two different times	Parallel groups open Italy
HOT , 1994 n=12526/6264 follow-up: 3.8 y	less or equal than 85 mmHg, or less or equal than 80 mmHg versus less or equal than 90 mmHg	patients with diastolic blood pressure between 100 mmHg and 115 mmHg	Factorial plan open 26 countries
REIN-2 , 2005 n=169/169 follow-up: 36 months	intensified (systolic/diastolic <130/80 mm Hg) blood-pressure control versus conventional (diastolic <90 mm Hg) blood-pressure control	patients with non-diabetic proteinuric nephropathies receiving background treatment with the ACE inhibitor ramipril	open
MDRD , 1994 n=840 follow-up: 2.2 y	low target blood pressure (mean arterial pressure <92 mm Hg) versus usual target blood pressure (mean arterial pressure <107 mm Hg)	patients with predominantly nondiabetic kidney disease and a glomerular filtration rate of 13 to 55 mL/min per 1.73 m ²	open
Toto , 1995 n=42/35 follow-up:	strict blood pressure control (DBP 65 to 80 mm Hg) versus usual blood pressure control (DBP 85 to 95 mm Hg)	non-diabetic patients (age 25 to 73) with long-standing hypertension (DBP ≥ 95 mm Hg), chronic renal insufficiency (GFR <or = 70 m/min/1.73 m ²) and a normal urine sediment	open

References

SPRINT, 2015:

A Randomized Trial of Intensive versus Standard Blood-Pressure Control. N Engl J Med 2015 Nov 9;: [26551272] [10.1056/NEJMoa1511939](https://doi.org/10.1056/NEJMoa1511939)

Cardio-Sis, 2009:

Verdecchia P, Staessen JA, Angeli F, de Simone G, Achilli A, Ganau A, Mureddu G, Pede S, Maggioni AP, Lucci D, Reboldi G Usual versus tight control of systolic blood pressure in non-diabetic patients with hypertension (Cardio-Sis): an open-label randomised trial. Lancet 2009;374:525-33 [19683638]

HOT, 1994:

Hansson L, Zanchetti A, Carruthers SG, Dahlf B, Elmfeldt D, Julius S, Mnard J, Rahn KH, Wedel H, Westerling S Effects of intensive blood-pressure lowering and low-dose aspirin in patients with hypertension: principal results of the Hypertension Optimal Treatment (HOT) randomised trial. *Lancet* 1998;351:1755-62 [9635947]

Hansson L, Zanchetti A The Hypertension Optimal Treatment (HOT) Study: 24-month data on blood pressure and tolerability. *Blood Press* 1997;6:313-7 [9360003]

Hansson L, Zanchetti A The Hypertension Optimal Treatment (HOT) Study—patient characteristics: randomization, risk profiles, and early blood pressure results. *Blood Press* 1994;3:322-7 [7866597]

Zanchetti A, Hansson L, Dahlf B, Elmfeldt D, Kjeldsen S, Kolloch R, Laroche P, McInnes GT, Mallion JM, Ruilope L, Wedel H Effects of individual risk factors on the incidence of cardiovascular events in the treated hypertensive patients of the Hypertension Optimal Treatment Study. *HOT Study Group. J Hypertens* 2001;19:1149-59 [11403365]

REIN-2, 2005:

Ruggenti P, Perna A, Loriga G, Ganeva M, Ene-Iordache B, Turturro M, Lesti M, Perticucci E, Chakarski IN, Leonardi D, Garini G, Sessa A, Basile C, Alpa M, Scanziani R, Sorba G, Zoccali C, Remuzzi G Blood-pressure control for renoprotection in patients with non-diabetic chronic renal disease (REIN-2): multicentre, randomised controlled trial. *Lancet* 2005;365:939-46 [15766995] [10.1016/S0140-6736\(05\)71082-5](https://doi.org/10.1016/S0140-6736(05)71082-5)

Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 38. *UK Prospective Diabetes Study Group. BMJ* 1998;317:703-13 [9732337]

MDRD, 1994:

Klahr S, Levey AS, Beck GJ, Caggiula AW, Hunsicker L, Kusek JW, Striker G The effects of dietary protein restriction and blood-pressure control on the progression of chronic renal disease. *Modification of Diet in Renal Disease Study Group. N Engl J Med* 1994;330:877-84 [8114857]

Lazarus JM, Bourgoignie JJ, Buckalew VM, Greene T, Levey AS, Milas NC, Paronandi L, Peterson JC, Porush JG, Rauch S, Soucie JM, Stollar C Achievement and safety of a low blood pressure goal in chronic renal disease. *The Modification of Diet in Renal Disease Study Group. Hypertension* 1997;29:641-50 [9040451]

Peterson JC, Adler S, Burkart JM, Greene T, Hebert LA, Hunsicker LG, King AJ, Klahr S, Massry SG, Seifter JL Blood pressure control, proteinuria, and the progression of renal disease. *The Modification of Diet in Renal Disease Study. Ann Intern Med* 1995;123:754-62 [7574193]

Sarnak MJ, Greene T, Wang X, Beck G, Kusek JW, Collins AJ, Levey AS The effect of a lower target blood pressure on the progression of kidney disease: long-term follow-up of the modification of diet in renal disease study. *Ann Intern Med* 2005;142:342-51 [15738453]

Toto, 1995:

Toto RD, Mitchell HC, Smith RD, Lee HC, McIntire D, Pettinger WA "Strict" blood pressure control and progression of renal disease in hypertensive nephrosclerosis. *Kidney Int* 1995;48:851-9 [7474675]

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.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

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