

Strategy of Blood Pressure Intervention in Elderly Hypertensive Patients (STEP)

Purpose: Does treating elderly patients with hypertension to a target BP of <130 result in lower incidents of cardiovascular (CV) events than treating to a target BP of 130<150?

Trial Design: Multi-center RCT at 42 sites in China. (n = 8511); Median follow-up 3.34 years

Primary Outcomes: Composite of stroke, acute coronary syndrome or ACS (acute myocardial infarction and hospitalization for unstable angina), acute decompensated heart failure (HF), coronary revascularization, atrial fibrillation (AF), or death from cardiovascular causes.

Secondary/Other Outcomes: Separate composite from Primary and hypotension

Results	Intensive Treatment (target BP 110<130; n = 4243)	Standard Treatment (target BP 130<150; n = 4268)	Relative Risk HR; P value
Primary Composite	n = 147 (3.5%)	N = 196 (4.6%)	HR 0.74; P = .007
Secondary Outcomes			
Components of Primary			
Stroke	48 (1.1)	71 (1.7)	RRR 33%; HR 0.67;
ACS	55 (1.3)	82 (1.9)	RRR 33%; HR 0.67
HF	3 (0.1)	11 (0.3)	RRR 73%; HR 0.27
Coronary Revascularization, AF, CV-related death	22 (0.5); 24 (.06); 18 (0.4)	32 (0.7); 25 (0.6); 25 (0.6)	HR 0.69; No significant difference between groups
Safety			CI 95%
Hypotension	146 (3.4)	113 (2.6)	RR = 1.31; P = 0.03
Interpretation: Intensive treatment for hypertension in older patients with a target systolic BP of 110 to less than 130 Hg. resulted in lower incidence of CV events than treatment with the target of systolic BP of 130 to 150 Hg.			

