Supplementary Online Content

Kitagawa K, Yamamoto Y, Arima H, et al. Effect of standard vs intensive blood pressure control on the risk of recurrent stroke: a randomized clinical trial and meta-analysis. *JAMA Neurol*. Published online July 29, 2019. doi:10.1001/jamaneurol.2019.2167

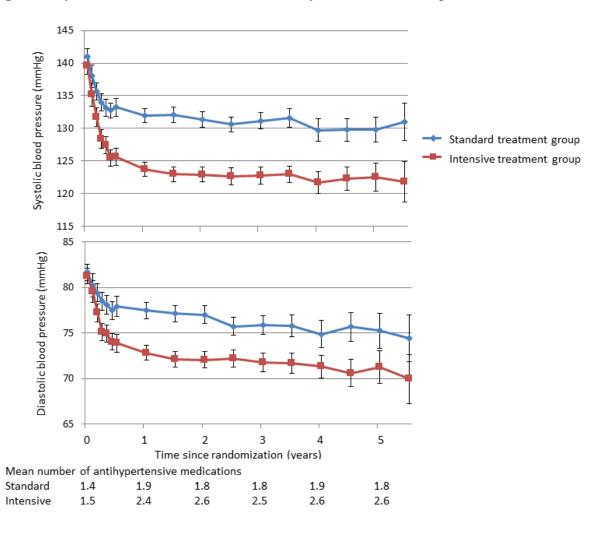
eFigure 1. Systolic and Diastolic Blood Pressure by Randomized Groups

eFigure 2. Effects of Intensive Blood Pressure Treatment on Recurrent Stroke by Subgroups

eFigure 3. Effects of Intensive Blood Pressure Lowering on Recurrent Ischemic Stroke and Intracerebral Hemorrhage: Meta-analysis of Randomized Controlled Trials

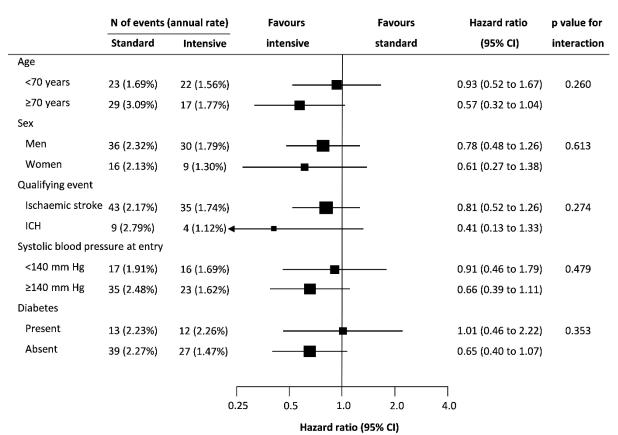
eTable. Serious Adverse Events by Randomized Groups

This supplementary material has been provided by the authors to give readers additional information about their work.



eFigure 1. Systolic and Diastolic Blood Pressure by Randomized Groups

The systolic and diastolic blood pressure target in the intensive treatment group was <120/80 mmHg and the target in the standard treatment group was <140/90 mmHg. Vertical lines represent 95% confidence interval. The mean number of antihypertensive medications at each visit was shown by the randomized groups in the bottom panel.



eFigure 2. Effects of Intensive Blood Pressure Treatment on Recurrent Stroke by Subgroups

Boxes and horizontal lines represent relative risks and 95% confidence intervals (95% CIs) for each trial, and the size of boxes is proportional to the inverse variance. ICH = intracerebral hemorrhage

N of event	s/patients	Favors	Favors	
Intensive	Control	Intensive	control	Relative risk (95% CI)
				10
112/1501	131/1519			0.87 (0.68-1.10)
38/633	41/630	•		0.92 (0.60-1.41)
150/2134	172/2149	\diamond	>	0.88 (0.71-1.08)
erall effect, I ² =	=0%)			
morrhage				
6/1501	16/1519	· · · · · · · · · · · · · · · · · · ·		0.38 (0.15-0.97)
1/633	11/630	←		0.09 (0.01-0.70)
7/2134	27/2149	$\langle \rangle$		0.25 (0.07-0.90)
erall effect, I ² =	=36%)			
	(0.05 0.1 0.2 0.3 0.5 1	1 2	4
		Relative risk	(95% CI)	
	Intensive 112/1501 38/633 150/2134 erall effect, I ²⁼ morrhage 6/1501 1/633 7/2134	112/1501 131/1519 38/633 41/630 150/2134 172/2149 erall effect, I ² =0%) morrhage 6/1501 16/1519 1/633 11/630 7/2134 27/2149 erall effect, I ² =36%)	Intensive Control Intensive 112/1501 131/1519 38/633 41/630 150/2134 172/2149 ørrall effect, $l^2=0\%$) morrhage 6/1501 16/1519 1/633 11/630 ørrall effect, $l^2=36\%$)	Intensive Control Intensive Control 112/1501 131/1519 - 38/633 41/630 - 150/2134 172/2149 - wrall effect, l ² =0%) - - morrhage - - 6/1501 16/1519 - 1/633 11/630 - 7/2134 27/2149 - wrall effect, l ² =36%) - -

eFigure 3. Effects of Intensive Blood Pressure Lowering on Recurrent Ischemic Stroke and Intracerebral Hemorrhage: Meta-analysis of Randomized Controlled Trials

Boxes and horizontal lines represent relative risks and 95% confidence intervals (95% CIs) for each trial; the size of boxes is proportional to the inverse variance; diamonds show the 95% CIs for pooled estimates of effect and are centered on pooled relative risk.

eTable. Serious Adverse Events by Randomized Groups

	N of events		
	Standard treatment	Intensive treatment	D
Serious adverse events	(n=630)	(n=633)	P value
Angina pectoris	5 (0.79%)	3 (0.47%)	.506
New-onset or worsening heart failure	3 (0.47%)	5 (0.79%)	.726
New-onset or worsening of atrial fibrillation	10 (1.59%)	5 (0.79%)	.206
Coronary intervention or surgery	11 (1.74%)	10 (1.58%)	.830
Aortic aneurysm rupture /dissection	2 (0.32%)	0 (0%)	.249
New-onset or worsening of peripheral artery disease	1 (0.16%)	2 (0.32%)	.999
Worsening renal function*	1 (0.16%)	6 (0.95%)	.124
Hemodialysis treatment	0 (0%)	1(0.16%)	.999
New-onset diabetes mellitus	3 (0.48%)	5(0.79%)	.726
New-onset gout	1 (0.16%)	2 (0.32%)	.999
New-onset or worsening cognitive function	5 (0.79%)	5 (0.79%)	.999
Abnormality of serum potassium	0 (0%)	1 (0.16%)	.999
Malignant neoplasm	32 (5.08%)	23 (3.63%)	.218
Bone fracture	17 (2.70%)	13 (2.05%)	.467
Pneumonia	7 (1.11%)	18 (2.84%)	.041
Syncope / dizziness	4 (0.63%)	6 (0.95%)	.753
Infectious disease	7 (1.11%)	5 (0.79%)	.578
Collagen or blood disease	3 (0.48%)	2 (0.32%)	.686
Endocrine or metabolic disease	2 (0.32%)	2 (0.32%)	.999
Psychiatric or neurologic disease	5 (0.79%)	5 (0.79%)	.999
Opthalmic or skin disease	2 (0.32%)	2 (0.32%)	.999
Acute or chronic subdural hematoma	1 (0.16%)	4 (0.63%)	.374
Other cardiovascular disease	6 (0.95%)	7 (1.11%)	.999
Respiratory disease	6 (0.95%)	4 (0.63%)	.546
Gastrointestinal disease	23 (3.65%)	18 (2.84%)	.432
Musculoskeletal disorders	8 (1.27%)	8 (1.26%)	.999
Kidney / urinary tract	0 (0%)	0 (0%)	-
Genital system disease	4 (0.63%)	0 (0%)	.062
Injury	2 (0.32%)	9 (1.42%)	.064

Dehydration, abnormal sodium and others	7 (1.11%)	8 (1.26%)	.999

*All patients showed increase of serum creatinine \geq 2.0 mg/dl.