

INTERACT 1

see also [INTERACT 2](#).

Blood pressure (BP) lowering after spontaneous **intracerebral hemorrhage** (ICH) is intuitively attractive as a means to prevent continued bleeding or perihematoma edema. Concerns about potential reduction of **cerebral perfusion pressure** with concomitant risk of **ischemia**, particularly among patients with a recalibrated autoregulatory curve as a consequence of chronic hypertension, were largely mitigated by imaging studies that found no significant reduction of cerebral blood flow in the face of pharmacological BP lowering,^{1) 2) 3)} and the Intensive Blood Pressure Reduction in Acute Cerebral Hemorrhage Trial (INTERACT) pilot study.

Pooled analyses of the INTERACT CT substudies-international, multicentre, prospective, open, blinded end point, randomised controlled trials of patients with acute spontaneous ICH and elevated systolic blood pressure (SBP)-randomly assigned to intensive (<140 mm Hg) or guideline-based (<180 mm Hg) SBP management. Participants had blinded central analyses of baseline and 24 h CTs, with dIVH defined as new **intraventricular hemorrhage** (IVH) on the latter scan. Outcomes of death and major disability were defined by modified Rankin Scale scores at 90 days.

There were 349 (27%) of 1310 patients with baseline IVH, and 107 (11%) of 961 initially IVH-free patients who developed dIVH. Significant associations of dIVH were prior warfarin anticoagulation, high (≥ 15) baseline National Institutes of Health Stroke Scale score, larger (≥ 15 mL) ICH volume, greater ICH growth and higher achieved SBP over 24 h. Compared with those who were IVH-free, dIVH had greater odds of 90-day death or major disability versus initial IVH (adjusted ORs 2.84 (95% CI 1.52 to 5.28) and 1.87 (1.36 to 2.56), respectively (p trend <0.0001)).

Although linked to factors determining greater ICH growth including poor SBP control, dIVH is independently associated with poor outcome in acute small to moderate-size ICH⁴⁾.

1)

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2)

Kidwell CS, Saver JL, Mattiello J, Warach S, Liebeskind DS, Starkman S, et al. Diffusion-perfusion MR evaluation of perihematoma injury in hyperacute intracerebral hemorrhage. *Neurology*. 2001;57:1611-1617.

3)

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4)

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