Optimal systolic BP control after acute ICH: *pooled IPD analyses of the INTERACT2 and ATACH-II trials*

Tom Moullaali
British Heart Foundation Clinical Research Training Fellow

On behalf of:
Xia Wang, Renee' Martin, Berlene Shipes, Tom Robinson, John Chalmers, Jose Suarez, Adnan Qureshi, Yuko Palesch, Craig Anderson

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Background: Uncertainty persists over effects of blood pressure (BP) lowering in acute intracerebral haemorrhage (ICH). We determined associations of key systolic blood pressure (SBP) measures and efficacy and safety outcomes in ICH.

Methods: Pre-planned pooled IPD analysis of INTERACT2 and ATACH-II. SBP summary measures assessed across shared time points over 24 hr: (i) *achieved* (mean) (ii) *variability* (standard deviation) and (iii) *magnitude* of reduction in 1 hr. Primary outcome was functional status (ordinal analysis of mRS scores at 90 days); or where proportional odds assumption was violated, standard binary mRS cut-points for disability.

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Main findings: Linear association of achieved SBP and functional status to levels as low as 120-130 mmHg (improvement per 10 mmHg increase: adjusted odds ratio [aOR] 0·90, 95% CI 0·87–0·94, p<0·0001). SBP variability associated with functional independence (mRS 0-2, per 10 mmHg increase: aOR 0·87, 95% CI 0·79-0·97, p=0·0124). No clear associations of magnitude of SBP reduction and outcome.

Interpretation: Achieving early and stable levels of SBP as low as 120-130 mm Hg over 24 hr is associated with favourable outcomes in acute ICH.

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