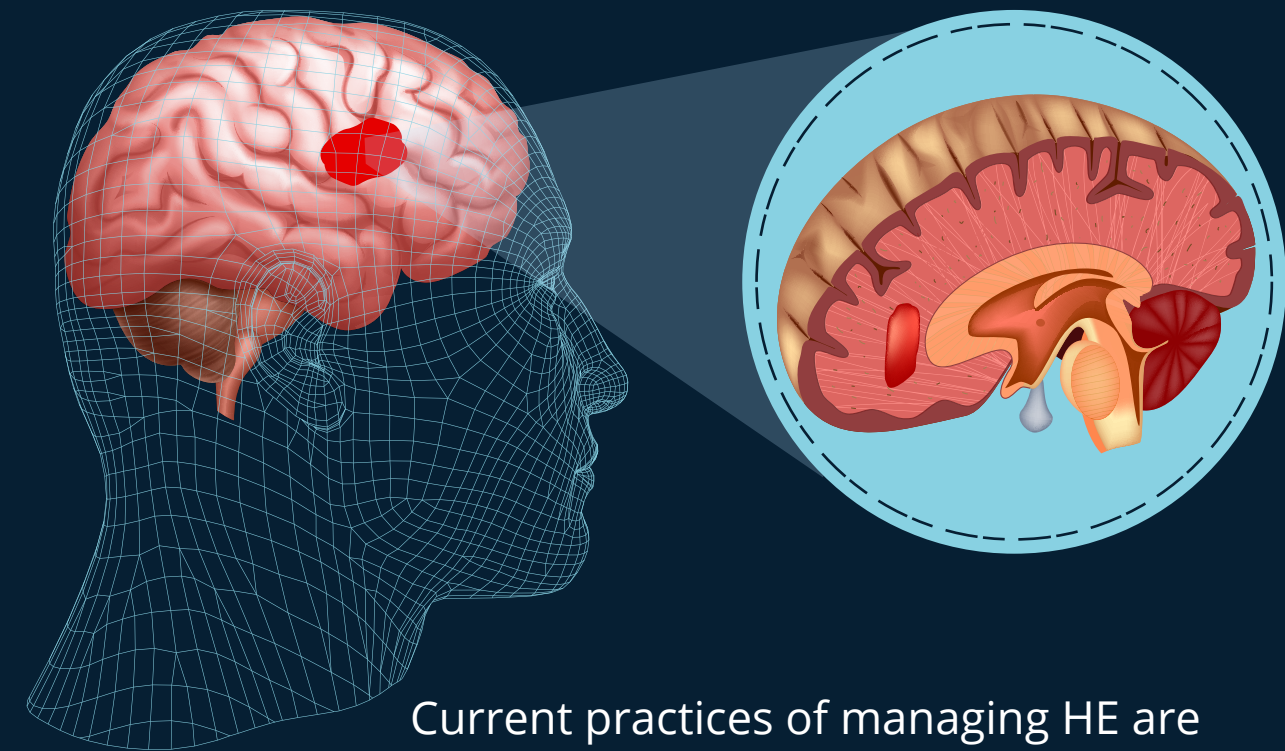


# Hematoma Expansion in Intracerebral Hemorrhage with Unclear Onset

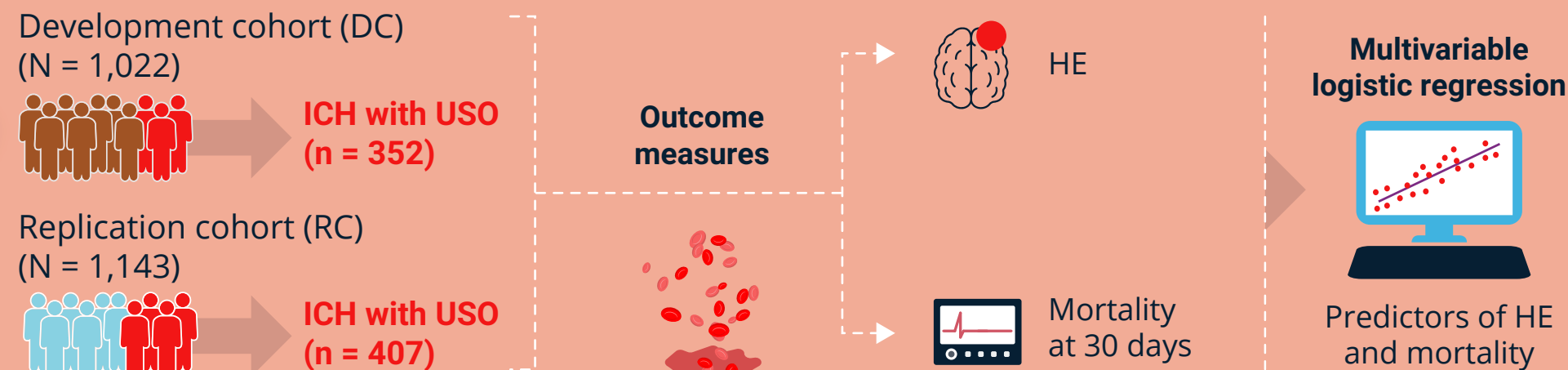
Hematoma expansion (HE) in patients with acute intracerebral hemorrhage (ICH) is known to increase the likelihood of death and functional dependence



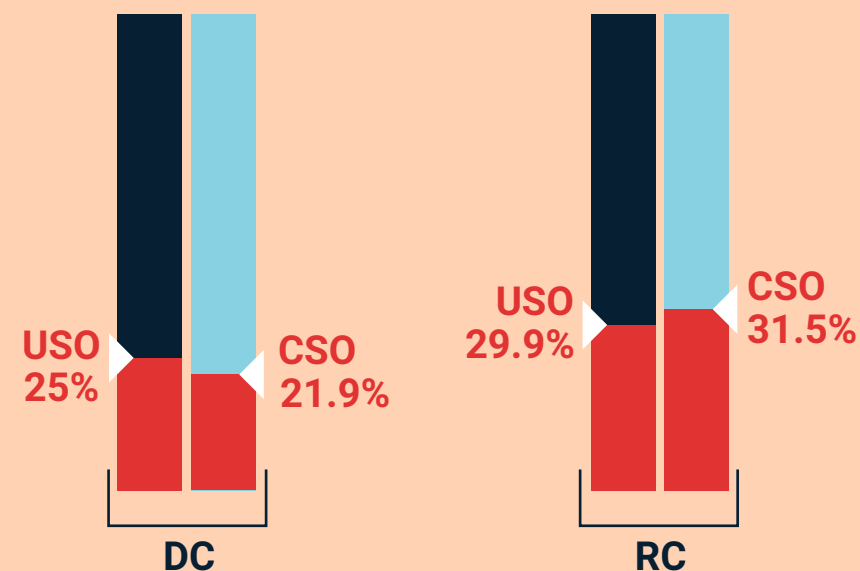
Current practices of managing HE are mainly derived from studies on ICH cases with **clear symptom onset (CSO)**

## Study question

What is the prevalence, predictors, and impact of HE in ICH cases with **unclear symptom onset (USO)**?



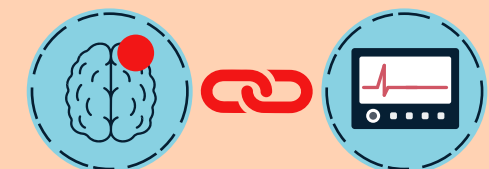
Similar frequency of HE in patients with USO and CSO



HE associated with mortality in USO

DC, odds ratio (OR) = 2.64

(95% CI 1.43–4.89,  $p = 0.002$ )



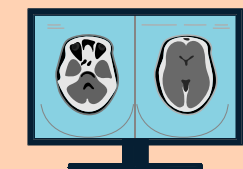
RC, OR = 3.46

(95% CI 1.86–6.44,  $p < 0.001$ )

Hypodensities on noncontrast CT were an independent predictor of HE

DC: OR = 2.59

(95% CI 1.27–5.28,  $p = 0.009$ )



RC: OR = 2.43

(95% CI 1.42–4.17,  $p = 0.001$ )

HE is common in ICH cases with USO, and independently associated with mortality