

HAVE OUTCOMES FOR INTRACEREBRAL HAEMORRHAGE IN THE UK IMPROVED?

10-YEAR DATA FROM THE NATIONWIDE STROKE REGISTRY

Holloway, M.¹ Hbid, Y.¹ Bhalla, A.^{1 2} Stanley, K.¹ James, M.^{1 3}

¹King's College London, United Kingdom

²Guy's & St Thomas' NHS Foundation Trust

³Royal Devon University Healthcare NHS Foundation Trust

BACKGROUND

Intracerebral haemorrhage (ICH) accounts for 12% of admitted stroke in England, Wales, and Northern Ireland. Over the past 10 years the Sentinel Stroke National Audit Programme (SSNAP) has prospectively collected clinical audit data including outcomes for ICH patients. **We examined how these ICH outcomes have changed over the past 10 years when compared to ischaemic stroke.**

METHODS

The data was collected by SSNAP between 2013 and 2022 through its continuous clinical audit. This covers 158 in-patient stroke teams using an online proforma with in-built validations to ensure accuracy and complete case ascertainment. **Pre-stroke modified Rankin Scale (mRS) scores were collected in order to compare against mRS at discharge scores.**

Table 1: Modified Rankin Scale scores as they relate to patient outcomes

Modified Rankin Scale (mRS)	Patient Outcome
0-2	Independent
3-5	Dependent
6	Died

RESULTS

Between 2013-2022, 98,225 ICH patients were admitted representing 12% of all stroke admissions. Of these the median age of patients was 78 years. Pre-stroke disability (mRS score 3-5) has increased over the period for both ICH (20-23%) and ischaemic (18-20%) stroke admissions.

Outcomes:

- Independent outcomes for ICH patients have seen a relative fall of 14% over 10 years [p<0.005] (**figure 1a**) and by 11% for ischaemic stroke [P<0.0001] (**figure 1b**).
- In-hospital mortality for ICH has seen a 12% relative reduction over 10 years, falling from 33% to 29% [P<0.0001]. Whilst there has been an 8% relative reduction for ischaemic strokes over the 10 year period from 12 to 11% [P<0.0001] (**figure 1a & 1b**).
- The percentage of ICH patients discharged to a care home rather than back to their own home fell from 11% to 7% but remains higher than the institutionalisation rate for ischaemic stroke at 6% of patients.
- There has been a 14% increase in the proportion of ICH patients admitted to a stroke unit as their first ward of admission [P<0.0001] (**figure 2**).

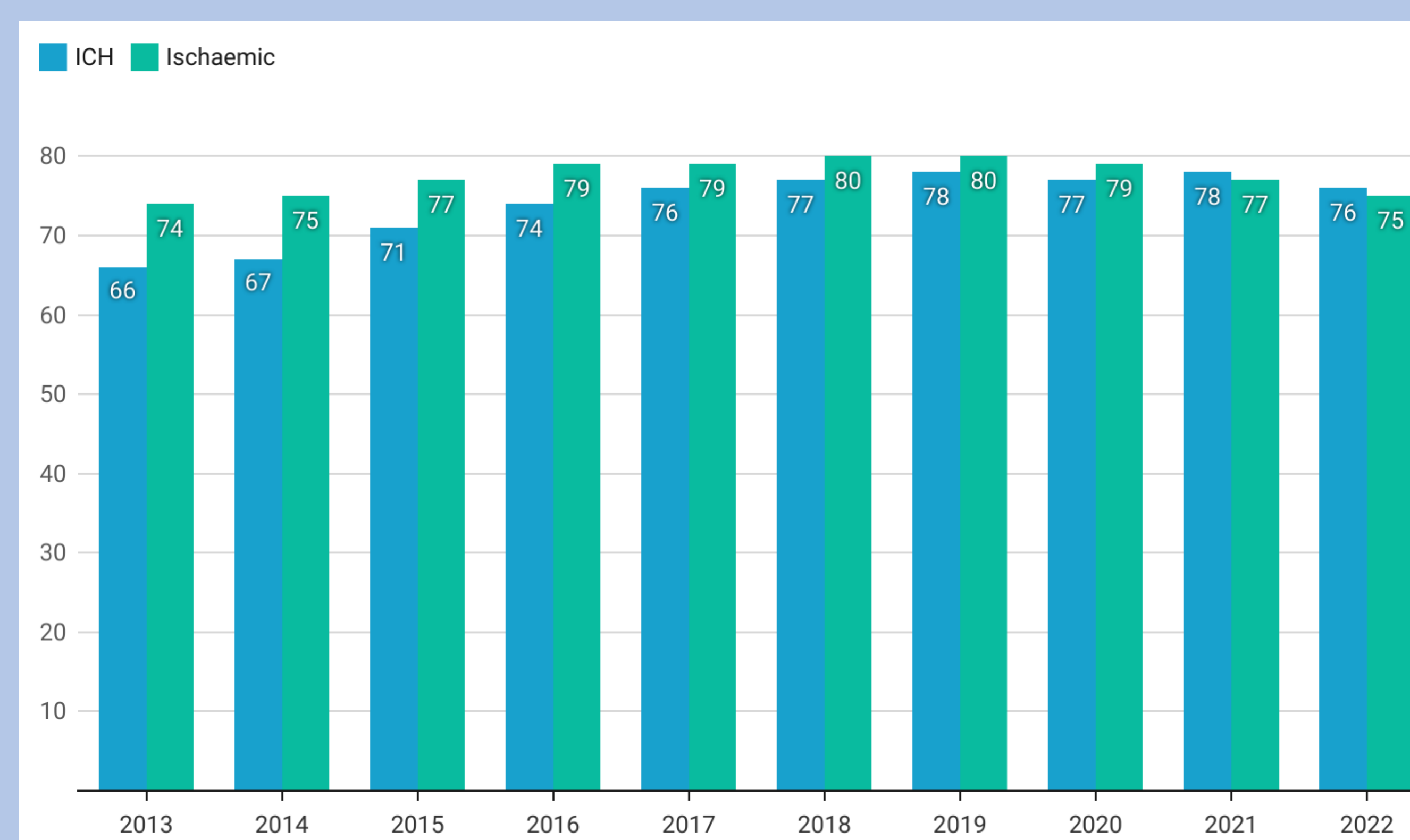


Figure 2: Between 2013 and 2022, the percentage of ICH patients admitted to a specialised stroke unit as the first ward of admission has risen by 14% over the period [P<0.0001], now reaching the same rate as for ischaemic stroke (75%).

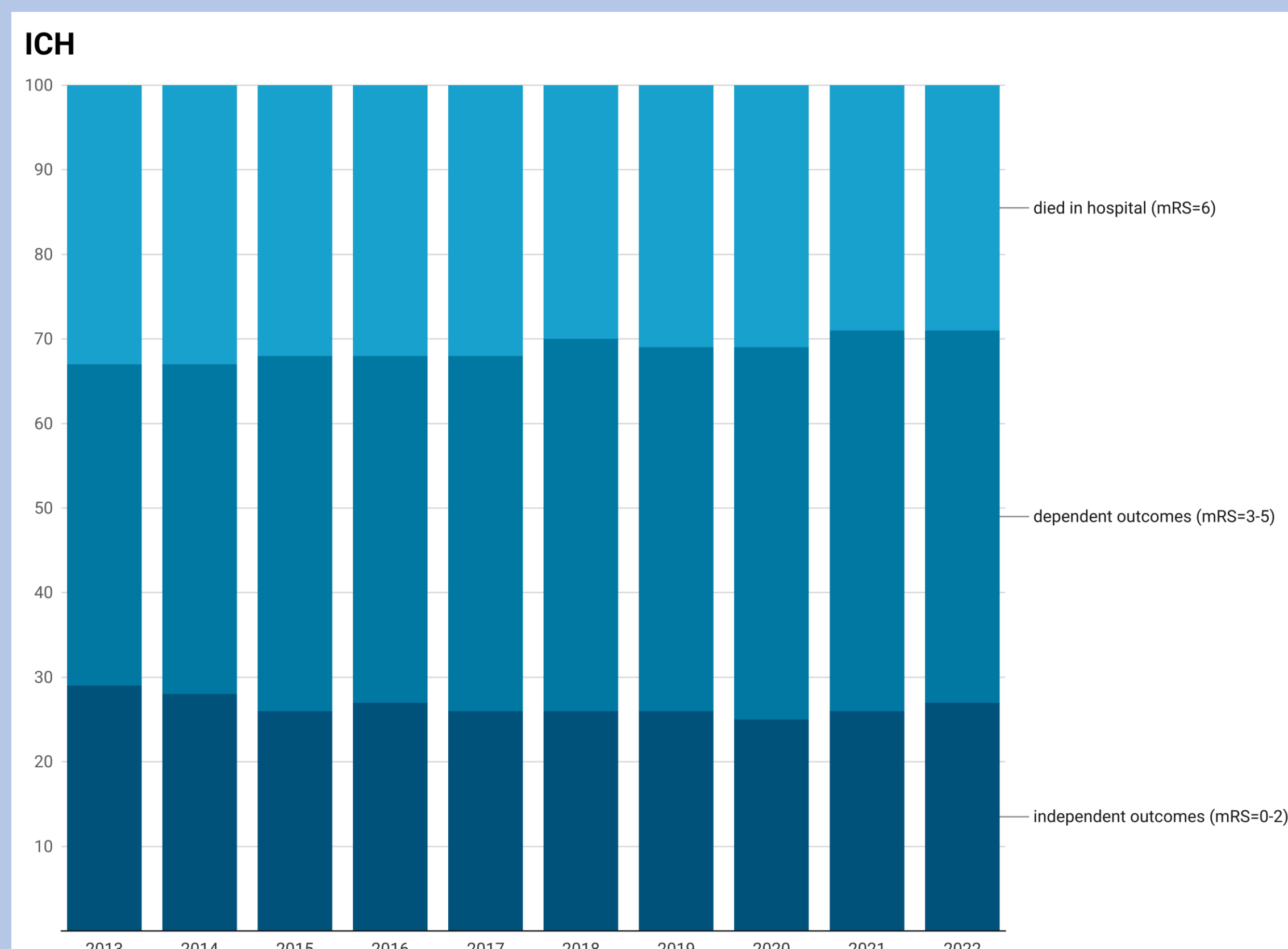


Figure 1a: mRS at discharge scores for ICH patients between 2013 and 2022.

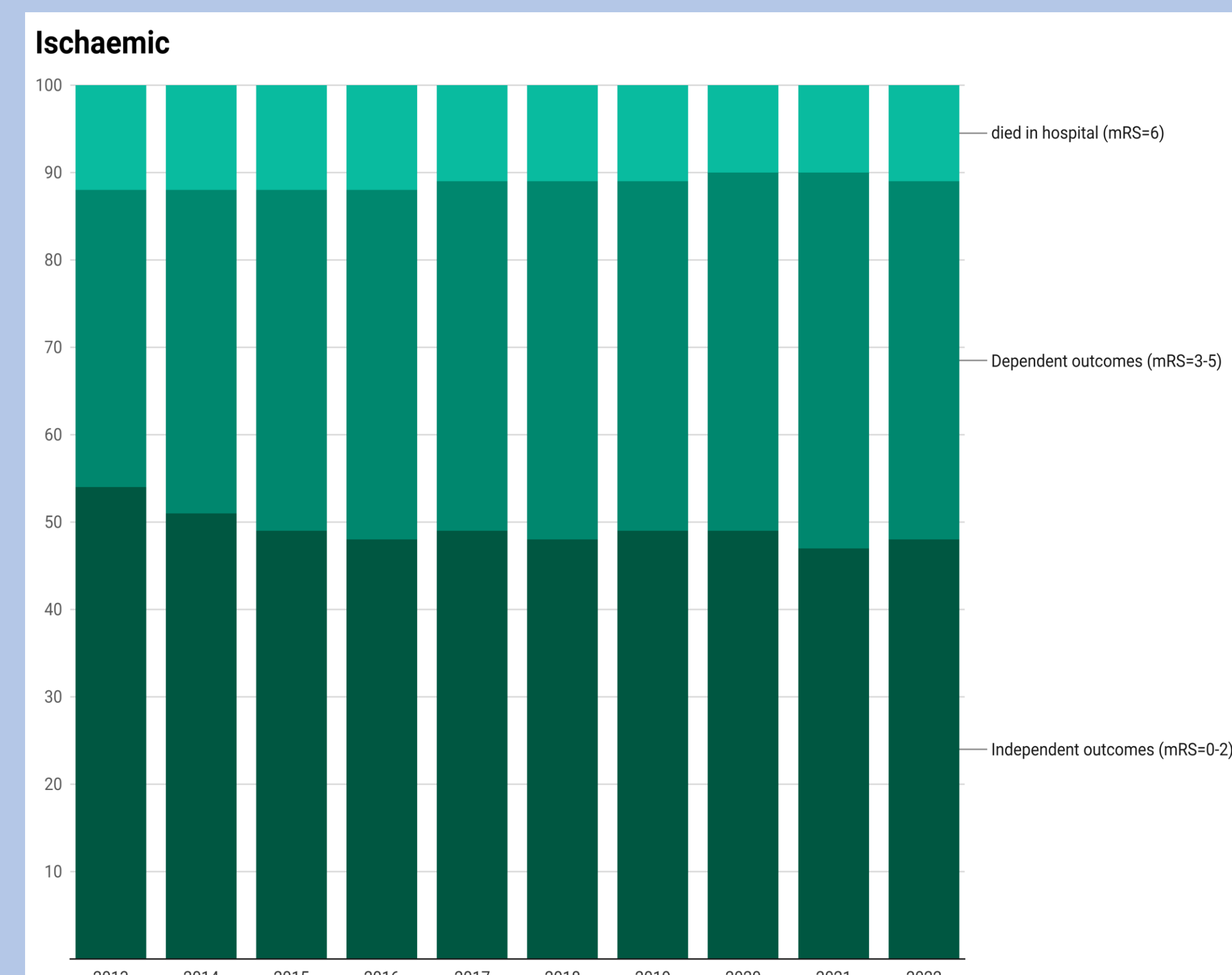


Figure 1b: mRS at discharge scores for ischaemic patients between 2013 and 2022.

CONCLUSION

The last 10 years of data collected by the SSNAP national stroke registry show that in-hospital mortality and institutionalisation rates for ICH have fallen significantly but remain much higher than for ischaemic stroke. Whilst there are a range of factors that may have influenced the improved ICH outcomes seen, the increase in specialist stroke unit access is likely to have contributed to this. These conclusions are limited to descriptive statistics and further analysis will be required to understand the factors principally responsible for this association. However, further progress in the management of acute ICH to improve survival and reduce disability remain an urgent priority.

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