## S3 Appendix: Cross-validation of risk-adjusted models.\*

Model	Akaike Information Criterion	Nagelkerke r <sup>2</sup>	c-statistic 95% CI	Brier Score
Standard Models				
Model 1: Base+Comorbidities**	13,309	0.17	0.75 (0.74-0.76)	0.12
Model 2: Base+Comorbidities+Stroke Severity	11,580	0.32	0.83 (0.82-0.84)	0.10
Enhanced models				
Model 1: Base+Comorbidities+Arrival mode <sup>†</sup> +Most	12,482	0.24	0.79 (0.78-0.80)	0.11
urgent ED triage category				
Model 2: Base+Comorbidities+Stroke severity+Most urgent ED triage category‡	11,494	0.32	0.83 (0.82-0.84)	0.10

\*Models were cross-validated with an external data-set applying the same selection criteria used to derive data for the main study period. The external data-set comprised three years of linked administrative data recording information about 17,339 ischaemic stroke patients from July 1, 2008 to June 30, 2011. \*\*Base variables are: Age, age\*age, sex, year of admission, prior stroke and a measure of socio-economic status based on patient location of residence. Comorbidities include Charlson comorbidities+Atrial Fibrillation; <sup>†</sup>Ambulance or private transport; ‡Note: Stroke severity measure for Model 2 incorporates arrival mode.