

## Supplementary Methods

### Data source

Data was sourced from our institution's prospectively collected stroke quality assurance database. The number of events were measured as counts and proportions where appropriate. Units of time were measured in minutes.

### Statistical analysis

Continuous variables were compared with a Kaplan-Meier analysis and categorical variables were compared with the

Fisher's exact test or Cochran-Mantel-Haenszel test, where appropriate. Group statistics were reported as mean±standard deviation and median with interquartile ranges for continuous variables and counts with percentages for categorical variables. Statistical significance was set at  $P<0.05$ . Statistical analysis was performed with SAS version 9.4 (SAS Institute Inc., Cary, NC, USA). This study followed the Strengthening and Reporting of Observational Studies in Epidemiology reporting guidelines (Appendix 1).

**Supplementary Table 1.** Baseline characteristics and treatment details

Baseline characteristic	Pre-protocol (n=97)	Post-protocol (n=96)	P
Age (yr), mean±SD	71.8±13.4	70.6±15.8	0.57
Male sex, % (n)	46.4 (45/97)	54.2 (52/96)	0.31
Atrial fibrillation, % (n)	46.4 (45/97)	31.3 (30/96)	0.04
Diabetes mellitus, % (n)	38.1 (37/97)	28.1 (27/96)	0.17
Hypertension, % (n)	75.3 (73/97)	68.8 (66/96)	0.34
Previous ischemic stroke or transient ischemic attack, % (n)	24.7 (24/97)	13.5 (13/96)	0.07
Admission NIHSS, mean±SD, median (IQR)	17.9±6.0, 18.0 (14.0–22.0)	16.6±6.3, 17.0 (14.0–21.0)	0.16
Pre-stroke mRS, mean±SD, median (IQR)	1.1±1.4, 0.0 (0.0–2.0)	0.7±1.2, 0.0 (0.0–1.5)	0.02
S-LAMS positive, % (n)	-	28.1 (27/96)	-
Occlusion location, % (n)			<0.01
ICA	20.6 (20/97)	9.4 (9/96)	
MCA (M1)	41.2 (40/97)	47.9 (46/96)	
MCA (M2)	18.6 (18/97)	22.9 (22/96)	
Basilar	13.4 (13/97)	6.3 (6/96)	
Other	6.2 (6/97)	13.5 (13/96)	
LKW-to-EMS arrival, median (95% CI)	36.0 (23.0–56.0)	48.0 (34.0–62.0)	0.44
Procedure details			
IVT, % (n)	55.7 (54/97)	64.6 (62/96)	0.24
Passes, mean±SD, median (IQR)	2.9±2.2, 2.0 (1.0–4.0)	2.5±2.0, 2.0 (1.0–3.0)	0.22
TICI 2B/3, % (n)	95.9 (93/97)	93.8 (90/96)	0.54

SD, standard deviation; NIHSS, National Institutes of Health Stroke Scale; IQR, interquartile range; mRS, modified Rankin Scale; S-LAMS, Los Angeles Motor Scale with the addition of Speech; ICA, internal carotid artery; MCA, middle cerebral artery; LKW, last known well; EMS, Emergency Medical Services; CI, confidence interval; IVT, intravenous thrombolysis; TICI, thrombolysis in cerebral infarction.