

Supplementary Table 4. Agreements of stroke subtype classification between deep learning algorithm and stroke neurologists (experts) after stratification by onset-to-imaging time

	External test dataset 3		Clinical trial dataset	
	Onset-to-imaging within 24 hours (n=412)	Onset-to-imaging between 24 hours–7 days (n=229)	Onset-to-imaging within 24 hours (n=595)	Onset-to-imaging between 24 hours–7 days (n=305)
	Deep learning algorithm vs. experts	Deep learning algorithm vs. experts	Deep learning algorithm vs. experts' consensus	Deep learning algorithm vs. experts' consensus
DWI-only algorithm				
Percentage agreement (95% CI)	57.0 (52.2–61.8)	63.3 (57.0–69.6)	61.2 (57.3–65.1)	58.7 (53.1–64.3)
Cohen's kappa (95% CI)	0.35 (0.27–0.42)	0.40 (0.31–0.50)	0.40 (0.35–0.46)	0.38 (0.30–0.46)
DWI+AF algorithm				
Percentage agreement (95% CI)	73.5 (69.3–77.8)	74.7 (69.0–80.4)	75.6 (72.2–79.1)	74.1 (69.2–79.0)
Cohen's kappa (95% CI)	0.59 (0.53–0.66)	0.57 (0.48–0.67)	0.62 (0.57–0.67)	0.55 (0.47–0.63)
Between experts				
Percentage agreement (95% CI)			76.7 (73.2–80.1)	74.8 (69.9–79.7)
Cohen's kappa (95% CI)			0.60 (0.55–0.66)	0.52 (0.43–0.60)

DWI, diffusion-weighted image; CI, confidence interval; AF, atrial fibrillation.

Supplementary Table 5. Mean probability of CE after decile stratification in the datasets for internal testing, external testing, and clinical trial

Decile	Probability of CE (%)				
	Internal test dataset	External test dataset 1	External test dataset 2	External test dataset 3	Clinical trial dataset
1	0.5 (0.2–0.8)	1.2 (0.3–2.1)	0.8 (0.3–1.2)	0.5 (0.2–0.8)	0.6 (0.2–0.9)
2	1.2 (0.8–1.6)	3.0 (2.1–4.0)	1.6 (1.3–2.1)	1.0 (0.8–1.2)	1.2 (0.9–1.7)
3	2.1 (1.6–2.5)	5.5 (4.0–7.4)	2.9 (2.2–3.8)	1.6 (1.2–2.1)	2.3 (1.7–2.9)
4	4.3 (2.6–6.5)	10.4 (7.5–14.4)	5.2 (3.9–7.1)	2.7 (2.1–3.5)	3.8 (3.0–5.0)
5	10.3 (6.5–15.4)	21.4 (14.4–30.3)	9.8 (7.2–13.2)	4.6 (3.5–6.0)	6.9 (5.1–9.7)
6	23.6 (15.8–31.1)	41.8 (30.3–54.3)	20.5 (13.4–30.0)	9.2 (6.1–14.0)	14.6 (9.7–20.2)
7	40.3 (31.3–51.7)	66.1 (54.4–75.5)	42.7 (30.2–56.2)	20.9 (14.3–28.1)	30.5 (20.2–40.3)
8	62.8 (51.8–72.3)	81.3 (75.5–85.8)	68.4 (57.2–78.7)	42.5 (28.3–58.2)	52.2 (40.7–64.0)
9	78.3 (72.6–86.5)	88.6 (85.8–90.7)	84.7 (79.1–89.3)	70.2 (58.4–79.5)	75.0 (64.4–83.0)
10	91.0 (86.6–96.1)	93.0 (90.7–96.9)	92.9 (89.5–97.8)	87.0 (79.5–96.0)	89.9 (83.3–96.0)

Data are presented as mean (minimum–maximum).

CE, cardioembolism.