

Table S1 Baseline characteristics after propensity score matching in patients with 0.9 mg/kg r-tPA and 1.0-1.5×1,000,000 U UK.

Variable	r-tPA (N=773)	UK (N=773)	P value
Dose mg/U per kg	0.90	1.71 (1.43-2.00)	-
Age, years	63.2 (11.0)	62.9 (10.6)	0.557
Male	548 (70.9)	532 (68.8)	0.375
BMI, kg/m ²	24.1 (3.7)	24.4 (3.3)	0.156
Educational level			0.475
Primary school degree or below	223 (28.8)	207 (26.8)	
Middle school degree	474 (61.4)	495 (64.0)	
Bachelor degree or above	76 (9.8)	71 (9.2)	
Current smoker	325 (42.0)	312 (40.4)	0.502
Current drinker	180 (23.3)	182 (23.5)	0.904
Hypertension	438 (56.7)	438 (56.7)	1.000
Coronary heart disease	113 (14.6)	115 (14.9)	0.886
History of stroke	151 (19.5)	142 (18.4)	0.559
Diabetes mellitus	148 (19.1)	149 (19.3)	0.949
Atrial fibrillation	70 (9.1)	76 (9.8)	0.602
SBP, mmHg	152.7 (22.6)	153.4 (23.0)	0.524
OTT, mins	171 (133-210)	178 (130-220)	0.530
DNT, mins	55 (35-86)	55 (35-90)	0.527
NIHSS score	6.0 (3.0-11.0)	5.0 (3.0-10.0)	0.534
TOAST classification			0.232
LAA	368 (47.6)	379 (49.0)	
CE	90 (11.6)	99(12.8)	
SAO	254 (32.9)	218 (28.2)	
ODC	18 (2.3)	19 (2.5)	
UND	43 (5.6)	58 (7.5)	
Hospital classification			0.643
Tertiary	712 (92.1)	707 (91.5)	
Secondary	61 (7.9)	66 (8.5)	

Data are n/N (%), mean (SD) or median (IQR)

BMI: body mass index. CE: cardioembolism. DNT: door-to-needle time. LAA: large-artery atherosclerosis. NIHSS: National Institutes of Health Stroke Scale. ODC: stroke of other determined cause. OTT: onset-to-treatment time. r-tPA: recombinant tissue plasminogen activator. SAO: small-artery occlusion. SBP: systolic blood pressure. TOAST: Trial of Org 10172 in Acute Stroke Treatment. UK: urokinase. UND: stroke of undetermined cause.

Table S2 Effectiveness and safety outcomes after propensity score matching in patients with 0.9 mg/kg r-tPA and 1.0-1.5×1,000,000 U UK.

Outcome	r-tPA (N=773)	UK (N=773)	OR or mean difference (95% CI)	P-value
mRS 0 to 1 at 90 days	553 (71.5)	535 (69.2)	1.12 (0.90-1.39)	0.316
mRS 0 to 2 at 90 days	639 (82.7)	618 (79.9)	1.20 (0.93-1.55)	0.171
mRS distribution at 90 days				0.336
0	303 (39.2)	272 (35.2)		
1	250 (32.3)	263 (34.0)		
2	86 (11.1)	83 (10.7)		
3	60 (7.8)	68 (8.8)		
4	34 (4.4)	33 (4.3)		
5	21 (2.7)	20 (2.6)		
6	19 (2.5)	34 (4.4)		
ΔNIHSS score to 24 hours§	2.4 ± 4.6	2.0 ± 4.4	0.33 (-0.12-0.79)	0.149
ΔNIHSS score to 14 days§	4.0 ± 5.7	3.7 ± 5.6	0.35 (-0.21-0.92)	0.223
sICH at 36 hours	2 (0.6)	1 (0.3)	2.36 (0.21-26.08)	0.485
Other bleeding events	8 (1.0)	7 (0.9)	1.14 (0.41-3.17)	0.795
Recurrent stroke at 90 days	11 (1.5)	18 (2.4)	1.67 (0.78-3.57)	0.183
All-cause mortality at 90 days	19 (2.5)	34 (4.4)	0.55 (0.31-0.97)	0.050

CI: confidence interval. mRS: modified Rankin scale. NIHSS: National Institutes of Health Stroke Scale. OR: odds ratio. r-tPA: recombinant tissue plasminogen activator. sICH: symptomatic intracerebral hemorrhage. UK: urokinase.

§from baseline.

Table S3 Effectiveness and safety outcomes for r-tPA and UK of patients with NIHSS scores 1 to 5.

Outcome	r-tPA n/N (%)	UK n/N (%)	Unadjusted OR or mean difference (95% CI)	P-value	Adjusted OR or mean difference (95% CI) *	P-value
mRS 0 to 1 at 90 days	351/404 (86.9)	498/581 (85.7)	0.91 (0.63-1.31)	0.602	0.77 (0.51-1.17)	0.224
mRS 0 to 2 at 90 days	385/404 (95.3)	544/581 (93.6)	0.73 (0.41-1.28)	0.267	0.54 (0.27-1.08)	0.082
mRS distribution at 90 days				0.620		0.424
0	194/404 (48.0)	265/581 (45.6)				
1	157/404 (38.9)	233/581 (40.1)				
2	34/404 (8.4)	46/581 (7.9)				
3	7/404 (1.7)	18/581 (3.1)				
4	4/404 (1.0)	10/581 (1.7)				
5	1/404 (0.2)	3/581 (0.5)				
6	7/404 (1.7)	6/581 (1.0)				
ΔNIHSS score to 24 hours §	0.7 ± 3.1	0.9 ± 2.3	0.13 (-0.51-0.17)	0.319	0.16 (-0.42-0.19)	0.446
ΔNIHSS score to 14 days §	1.3 ± 3.8	1.4 ± 2.9	0.22 (-0.47-0.38)	0.836	0.24 (-0.51-0.43)	0.866
sICH at 36 hours	3/404 (0.7)	1/581 (0.2)	0.23 (0.02-2.22)	0.204	0.00	0.993
Other bleeding events	6/404 (1.5)	1/581 (0.2)	0.11 (0.02-0.95)	0.045*	0.15 (0.02-1.29)	0.083
Recurrent stroke at 90 days	5/404 (1.2)	11/581 (1.9)	0.65 (0.22-1.88)	0.427	0.62 (0.19-2.04)	0.434
All-cause mortality at 90 days	7/404 (1.7)	6/581 (1.0)	0.59 (0.20-1.77)	0.349	1.04 (0.20-5.44)	0.966

CI: confidence interval. mRS: modified Rankin scale. NIHSS: National Institutes of Health Stroke Scale. OR: odds ratio. r-tPA: recombinant tissue plasminogen activator. sICH: symptomatic intracerebral hemorrhage. UK: urokinase.

*Propensity scores adjustment for all baseline variables in the model. §from baseline.

Table S4 Effectiveness and safety outcomes for r-tPA and UK of patients with NIHSS scores 6 to 10.

Outcome	r-tPA n/N (%)	UK n/N (%)	Unadjusted OR or mean difference (95% CI)	P-value	Adjusted OR or mean difference (95% CI) *	P-value
mRS 0 to 1 at 90 days	135/205 (65.9)	191/301 (63.5)	0.90 (0.62-1.31)	0.580	0.89 (0.59-1.34)	0.579
mRS 0 to 2 at 90 days	165/205 (80.5)	233/301 (77.4)	0.83 (0.54-1.29)	0.407	0.79 (0.49-1.27)	0.320
mRS distribution at 90 days				0.228		0.798
0	69/205 (33.7)	87/301 (28.9)				
1	66/205 (32.2)	104/301 (34.6)				
2	30/205 (14.6)	42/301 (14.0)				
3	21/205 (10.2)	36/301 (12.0)				
4	9/205 (4.4)	15/301 (5.0)				
5	7/205 (3.4)	6/301 (2.0)				
6	3/205 (1.5)	11/301 (3.7)				
ΔNIHSS score to 24 hours §	2.6 ± 4.0	2.6 ± 3.8	0.35 (-0.67-0.72)	0.943	0.39 (-0.94-0.59)	0.649
ΔNIHSS score to 14 days §	4.2 ± 4.0	3.9 ± 4.6	0.40 (-0.50-1.07)	0.471	0.41 (-0.71-0.91)	0.808
sICH at 36 hours	1/205 (0.5)	6/301 (2.0)	4.15 (0.50-34.72)	0.189	4.30 (0.48-38.64)	0.192
Other bleeding events	2/205 (1.0)	1/301 (0.3)	0.34 (0.03-3.76)	0.378	0.56 (0.05-6.56)	0.641
Recurrent stroke at 90 days	3/205 (1.5)	9/301 (3.0)	0.48 (0.13-1.80)	0.278	0.51 (0.13-1.97)	0.328
All-cause mortality at 90 days	3/205 (1.5)	11/301 (3.7)	2.55 (0.70-9.27)	0.154	2.12 (0.55-8.20)	0.278

CI: confidence interval. mRS: modified Rankin scale. NIHSS: National Institutes of Health Stroke Scale. OR: odds ratio. r-tPA: recombinant tissue plasminogen activator. sICH: symptomatic intracerebral hemorrhage. UK: urokinase.

*Propensity scores adjustment for all baseline variables in the model. §from baseline.

Figure S1. Flow diagram of the participants selection

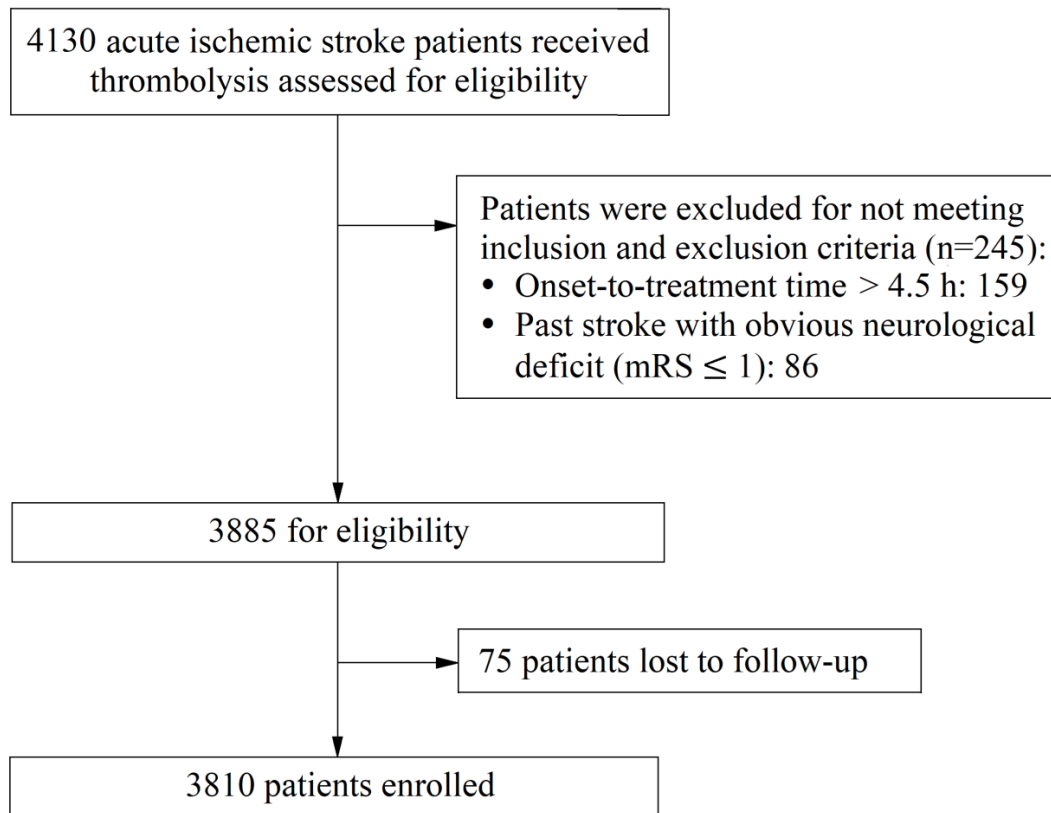
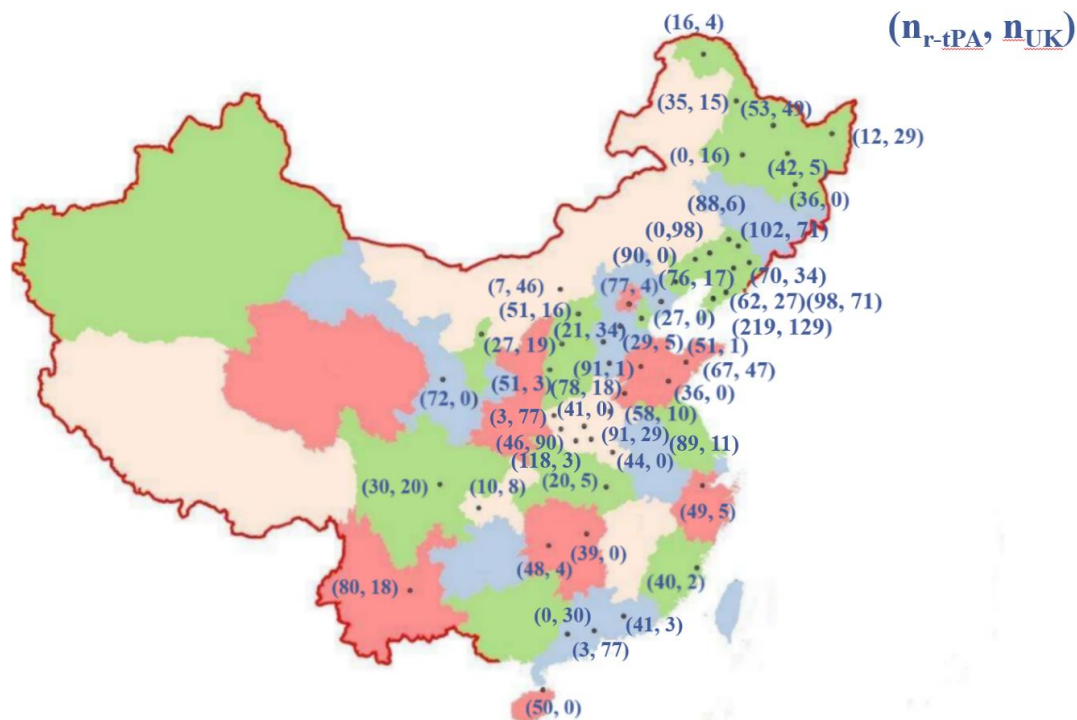
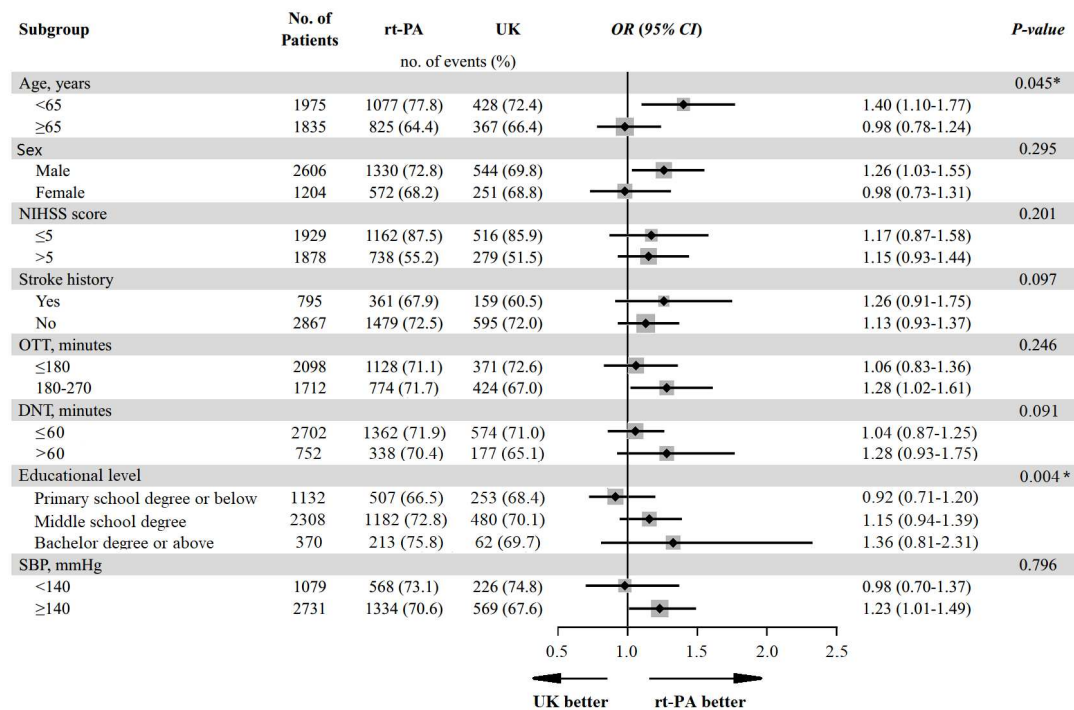


Figure S2. The distribution of r-tPA and UK across the participating sites



r-tPA, recombinant tissue plasminogen activator; UK, urokinase.

Figure S3. Subgroups



CI denotes confidence interval, DNT: door-to-needle time; NIHSS: National Institutes of Health Stroke Scale; OR: odds ratio; OTT: onset-to-treatment time; rt-PA: recombinant tissue plasminogen activator; UK: urokinase.