

Online Supplemental Data

Table I. Demographic and clinical characteristics of the study cohort

Variable	Category	Total N = 588	Delay N = 164	No Delay N = 424	P value
Age, years	mean (SD)	71.7 (15.0)	70.4 (14.6)	72.1 (15.1)	0.205
		N (%)	N (%)	N (%)	
Age	<80 years	394 (67.1)	113 (68.9)	281 (66.3)	0.805
Sex	Female	273 (46.4)	73 (44.5)	200 (47.2)	0.562
Race	Black	100 (17.0)	41 (25.0)	59 (13.9)	<0.001
	White	339 (57.7)	84 (51.2)	255 (60.1)	
	Asian	73 (12.4)	20 (12.2)	53 (12.5)	
	Other/Unknown	76 (12.9)	19 (11.6)	57 (13.4)	
MHI per annum	< \$80,000	214 (36.4)	56 (34.2)	158 (37.3)	0.228
	\$80,000-\$120,000	245 (41.7)	75 (45.7)	170 (40.1)	
	> \$120,000	121 (20.6)	33 (20.1)	88 (20.8)	
Health Insurance	Private Insurance	228 (38.8)	65 (39.6)	163 (38.4)	0.390
	Medicare/Medicaid	277 (47.1)	81 (49.4)	196 (46.2)	
	Uninsured/Self-pay	83 (14.1)	18 (11.0)	65 (15.3)	
Arrival Year	2019/2020	290 (49.3)	49 (29.9)	241 (56.8)	<0.001
Arrival Time	Off-hours	355 (60.4)	110 (67.1)	245 (57.8)	0.039
Arrival Mode	Ambulance	393 (66.8)	126 (76.8)	267 (63.0)	0.001
	Private Transport	195 (33.2)	38 (23.2)	157 (37.0)	
Imaging Location	PSC	198 (33.7)	118 (72.0)	80 (18.9)	<0.001
Baseline function	mRS \leq 3	525 (89.3)	155 (94.5)	370 (87.3)	0.011
Stroke severity	NIHSS \geq 10	236 (40.1)	92 (56.1)	144 (34.0)	<0.001
Onset-to-arrival time*	> 6 hours	214 (36.4)	65 (39.6)	149 (35.1)	0.310
Treatment	IV rtPA at CSC [†]	111 (28.5)	25 (54.4)	86 (25.0)	<0.001

	IV rtPA at PSC [†]	88 (44.4)	54 (45.8)	34 (42.5)	0.650
	Thrombectomy	100 (17.0)	45 (27.4)	55 (13.0)	<0.001
	Any treatment	254 (43.2)	102 (62.2)	152 (35.8)	<0.001
Early Outcome					
Length of Stay	≥ 8 days	178 (30.3)	63 (38.4)	115 (27.1)	0.008
Discharge mRS [‡]	0-2	287 (48.8)	68 (41.5)	219 (51.7)	0.101
	3-5	233 (39.6)	74 (45.1)	159 (37.5)	
	6	57 (9.7)	20 (12.2)	37 (8.7)	
Hospital Disposition	Home	241 (41.0)	44 (26.8)	197 (46.5)	<0.001
	Rehabilitation	277 (47.1)	98 (59.8)	179 (42.2)	
	Expired/Hospice	70 (11.9)	22 (13.4)	48 (11.3)	

*Onset-to-arrival time measured as the time difference between last known well and comprehensive stroke center arrival.

[†]IV rtPA at CSC was analyzed only for direct arrivals (n=390) and IV rtPA at PSC was analyzed only for transfer patients (n=198). Both comparisons are to patients who did not receive rtPA at CSC or PSC, respectively.

[‡]Includes 11 missing values.

Abbreviations: CSC, comprehensive stroke center, MHI, median household income, PSC, primary stroke center, SD, standard deviation

Uniform inclusion time window scenarios

Secondary analyses applying uniform inclusion criteria of 1-hour and 6-hour time limit for both CSC-G and PSC-G showed findings consistent with the primary analysis (see Figure 2, main manuscript). Mean (SD) time differences between NCCT and advanced imaging remained significantly higher in PSC-G compared to CSC-G. In the 1-hour analysis, a total of 535 patients met the inclusion criteria, comprised of 27.1% (145/535) PSC-G and 72.9% (390/535) CSC-G with mean [SD] time-delays of 16.8 [17.9] min and 3.9 [9.0] min, respectively (p<0.001). In the 6-hour analysis, a total of 881 patients met the inclusion criteria, comprised of 22.5% (198/881) PSC-G and 77.5% (683/881) CSC-G with mean [SD] time-delays of 40.4 [46.4] min and 23.6 [53.6] min, respectively (p<0.001).

In the regression models, uniform time-window results were generally consistent with the primary analysis (**Table II**), except for loss of significant association between time-delay and onset-to-arrival ≥6 hours (1-hour cohort) and baseline independent ambulation (6-hour cohort). In addition, in the 6-hour analysis, patients <80 years-old had lower odds of rescan time-delay (OR 0.65 [95% CI 0.45-0.94], p=0.022). As with the primary analysis, rescan time-delays decreased odds of home discharge in the uniform 1-hour cohort (OR 0.42 [95% CI 0.23-0.81],

p=0.009), but not in the 6-hour cohort. Other factors predicting home discharge and discharge mRS were the same as in the primary analysis.

Table II. Changes to regression models results after analysis of uniform inclusion time-window scenarios

Parameter	6-hour Inclusion Scenario		1-hour Inclusion Scenario	
	Odds Ratio (95% CI)	P value	Odds Ratio (95% CI)	P value
Rescan Time-Delay				
Age <80 years	0.65 (0.45-0.94)	0.022	Not significant	
Onset-to-arrival ≥6 hours	1.92 (1.29-2.86)	0.001	No longer significant	
Baseline mRS 0-3	No longer significant		5.98 (1.89-18.95)	0.002
Early Outcomes				
Home discharge	No longer significant		0.42 (0.23-0.81)	0.009

Analyses of comprehensive and primary stroke center imaging group scenarios separately for associations with rescan time-delay:

Separate analysis of the CSC-G revealed only intravenous thrombolysis (OR 3.44 (95% CI 1.48-7.97), p=0.004) independently increased odds of rescan time-delay. In the PSC-G analysis, Black race (OR 2.81 95% CI 1.27-6.26], p=0.011), baseline independent ambulation (OR 3.30 [95% CI 1.16-9.37], p=0.025), and onset-to-door >6 hours (OR 2.12 [95% CI 1.04-4.33], p=0.040) increased odds of rescan time-delay. Admission in 2019/2020 decreased odds of rescan time delay for both CSC-G (OR 0.25 [95% CI 0.12-0.53], p<0.001) and PSC-G (OR 0.43 [95% CI 0.23-0.83], p=0.011). **Table III** summarizes these findings.

Table III. Significant regression model results for rescan time-delay by imaging location

	CSC-G Only Scenario		PSC-G Only Scenario	
	Odds Ratio (95% CI)	P value	Odds Ratio (95% CI)	P value
Intravenous thrombolysis	3.44 (1.48-7.97)	0.004	Not significant	
Black race	Not significant		2.81 (1.27-6.26)	0.011
Baseline mRS 0-3	Not significant		3.30 (1.16-9.37)	0.025
Onset-to-door >6 hours	Not significant		2.12 (1.04-4.33)	0.040
Admission 2019/2020	0.25 (0.12-0.53)	<0.001	0.43 (0.23-0.83)	0.011

Abbreviations: CSC-G, comprehensive stroke center imaging group, PSC-G, primary stroke center imaging group