

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods. Propensity Score Matching

Propensity score matching was performed to reduce the possibility of selection bias and confounding on the primary and secondary outcomes. The propensity scores were estimated using a multivariable logistic regression model in which the treatment status (administration of intravenous thrombolysis) was regressed on selected baseline covariates (listed below). We conducted a 1:1 pair matching using nearest-neighbor matching without replacement and with a caliper width of 0.2. Graphical comparison was used to assess the distributional similarity of propensity scores between the treatment and control group. After propensity score matching, balance across the treatment and control group was assumed for all selected baseline covariates given an absolute standardized mean difference (SMD) of <0.10. Propensity score matching was conducted using the MatchIt package in R statistical software (version 4.1.2, R Project for Statistical Computing) and RStudio statistical software (version 2021.09.1+372, Rstudio).

Selected baseline covariates for estimation of propensity scores:

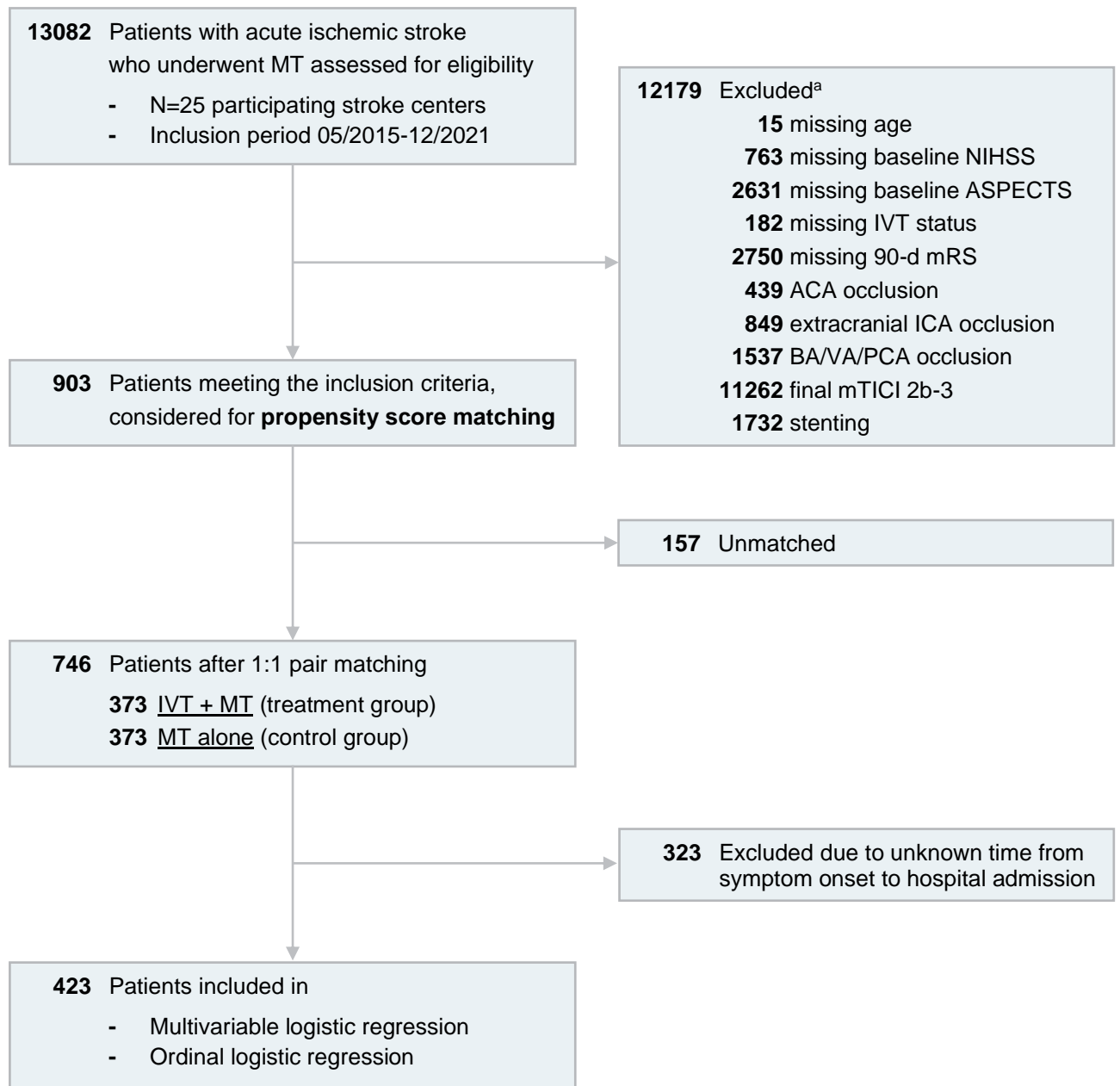
- Age
- Sex
- National Institutes Health Stroke Scale (NIHSS) on admission
- Alberta Stroke Program Early CT Score (ASPECTS) on admission

	Number of Patients (n)	
	Control	Treatment
All	513	390
Matched	373	373
Unmatched	140	17
Discarded	0	0

	Before Propensity Score Matching			After Propensity Score Matching		
	Control	Treatment	SMD*	Control	Treatment	SMD*
Age (years)	75.89	73.96	-0.14	75.27	74.95	-0.02
Male Sex (%)	43.1	41.0	-0.04	42.1	40.5	-0.03
NIHSS (points)	14.64	14.26	-0.06	14.23	14.33	0.02
ASPECTS (points)	7.84	8.37	0.29	8.31	8.35	0.02

*SMD, Standardized Mean Difference

eFigure 1. Flowchart of Patient Inclusion and Exclusion Criteria



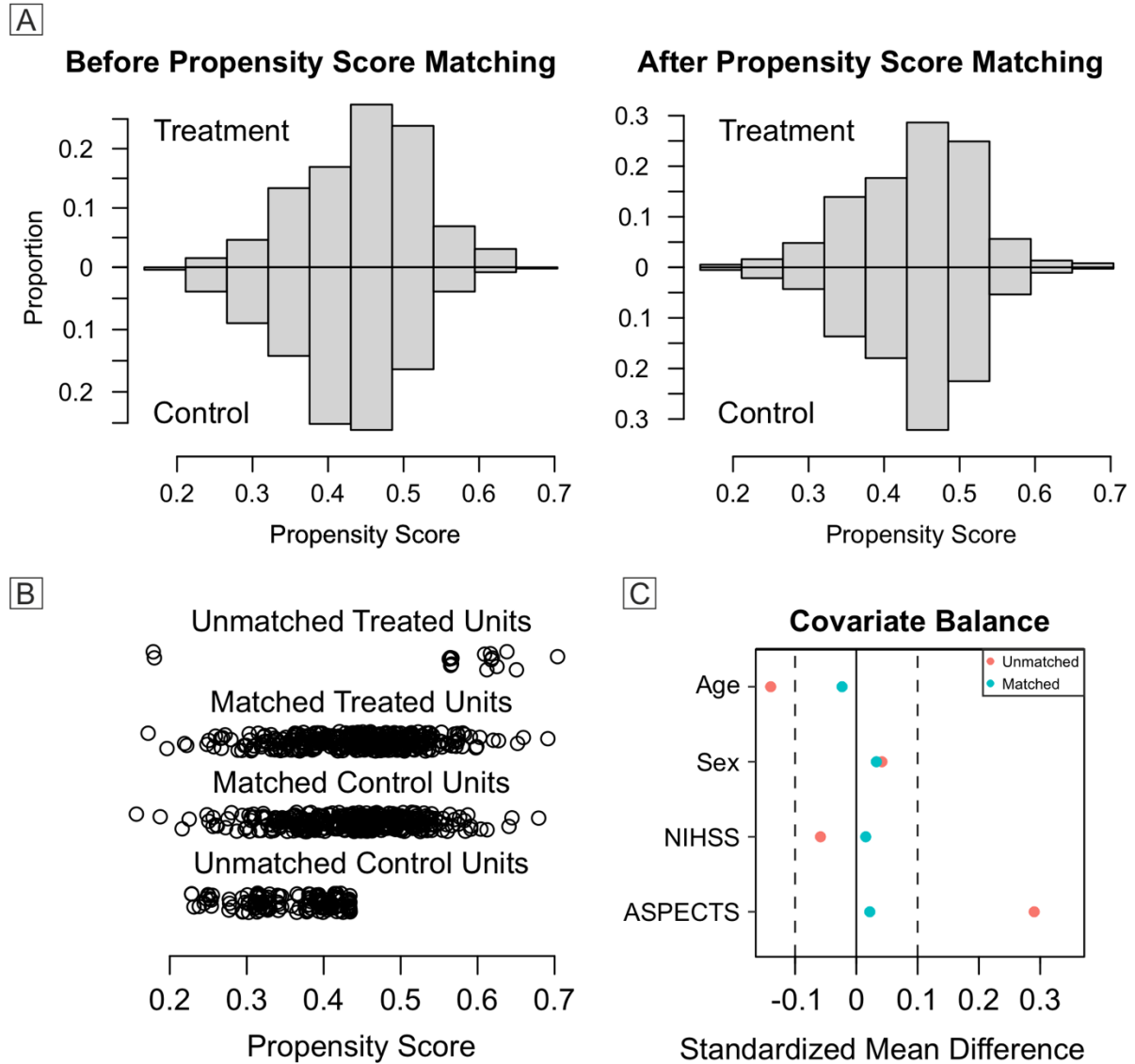
Abbreviations:

MT, Mechanical Thrombectomy; NIHSS, National Institutes Health Stroke Scale; ASPECTS, Alberta Stroke Program Early CT Score; IVT, Intravenous Thrombolysis; mRS, modified Rankin Scale; ACA, Anterior Cerebral Artery; ICA, Internal Carotid Artery; BA, Basilar Artery; VA, Vertebral Artery; PCA, Posterior Cerebral Artery; TICI, Thrombolysis in Cerebral Infarction

^a Multiple selection of patients possible.

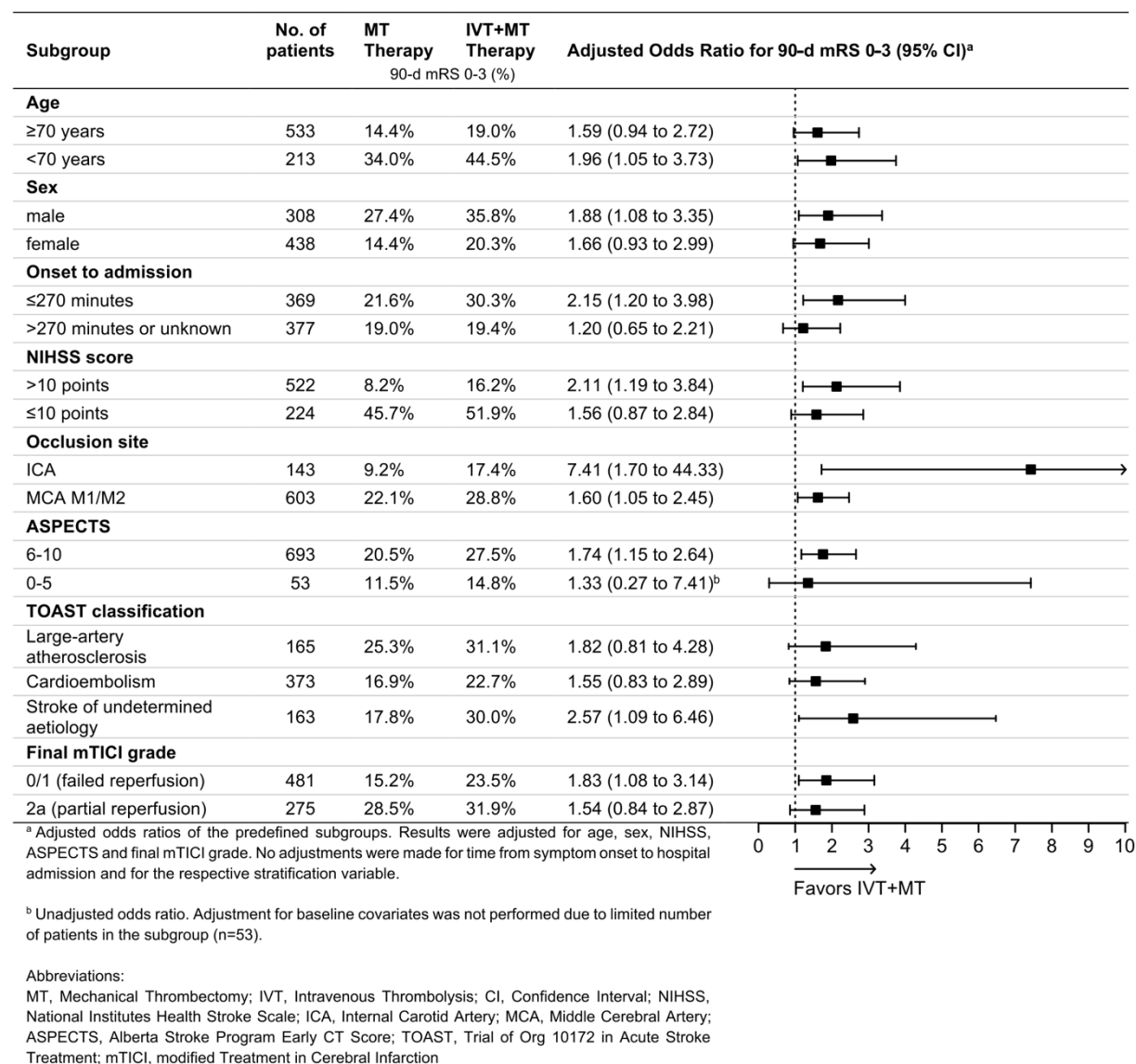
eFigure 2. Propensity Score Matching

(A) Distributions of propensity scores before and after propensity score matching for the treatment and control group. **(B)** Scatter plots displaying the distributions of propensity scores before and after propensity score matching for the treatment and control group. **(C)** Standardized mean differences before propensity score matching (red) and after propensity score matching (blue) for all selected baseline covariates. Balance across the treatment and control group was assumed for all selected baseline covariates given an absolute standardized mean difference of <0.10 (dashed lines).



eFigure 3. Subgroup Analyses for Independent Ambulation

The forest plot demonstrates that odds of achieving independent ambulation at 90 days (defined as modified Rankin Scale scores of 0 to 3) favored the IVT+MT group across all predefined subgroups. Arrows indicate that the limits of the confidence interval are not fully shown.



eTable 1. Functional Outcomes and Safety Measures Before Propensity Score Matching

Before Propensity Score Matching								
	Patients, No. (%)			<i>P</i> ^(a)	Adjusted Risk Difference (95% CI) ^b	Unadjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI) ^b	<i>P</i>
	All (n=903)	MT Therapy (n=513)	IVT+MT Therapy (n=390)					
Primary Outcome								
90-day mRS score 0-2	124/903 (13.7)	47/513 (9.2)	77/390 (19.7)	<.001 ²	6.7% (4.9 to 8.5)	2.44 (1.66-3.62)	2.65 (1.47-4.78)	.001
Secondary Outcomes								
90-day mRS score 0-3	199/903 (22.0)	87/513 (17.0)	112/390 (28.7)	<.001 ²	7.4% (3.0 to 11.8)	1.97 (1.44-2.72)	1.88 (1.14-3.12)	.01
90-day mRS score, median (IQR)	6 (4-6)	6 (4-6)	5 (3-6)	<.001 ¹	NA	1.91 (1.49-2.45) ^c	2.13 (1.49-3.05) ^c	<.001
Safety Measures								
Symptomatic ICH within 24 hours	49/889 (5.5)	27/505 (5.3)	22/384 (5.7)	.80 ²	0.4% (-2.3 to 3.0)	1.08 (0.60-1.92)	0.99 (0.42-2.42)	0.98
Death within 90 days	460/903 (50.9)	294/513 (57.3)	166/390 (42.6)	<.001 ²	-12.5% (-19.5 to -5.5)	0.55 (0.42-0.72)	0.49 (0.32-0.76)	.001

^a Characteristics were compared between MT and IVT+MT patients with the use of either Mann-Whitney U test (1) for continuous variables or a chi-square test (2) for categorical variables.

^b Results were adjusted for age, sex, interval from symptom onset to hospital admission, NIHSS, ASPECTS and final mTICI grade.

^c Common odds ratios derived from ordinal logistic regression analysis. Values greater than 1 indicate a shift in the distribution of 90-day mRS scores towards lower values (better functional outcomes) favoring IVT+MT compared with MT alone.

Abbreviations:
 MT, Mechanical Thrombectomy; IVT, Intravenous Thrombolysis, IQR, Interquartile Range; mRS, modified Rankin Scale; ICH, Intracranial Hemorrhage; NA, not applicable

eTable 2. Multivariable Logistic Regression Models

Used to identify independent determinants of functional independence at 90 days (modified Rankin Scale scores of 0 to 2) and independent ambulation at 90 days (modified Rankin Scale scores of 0 to 3) in stroke patients with unsuccessful mechanical reperfusion.

Independent Variables	90-day mRS score 0-2			90-day mRS score 0-3		
	β Coefficient	Adjusted Odds Ratio (95% CI)	<i>P</i>	β Coefficient	Adjusted Odds Ratio (95% CI)	<i>P</i>
Age (per 10 years)	-0.432	0.65 (0.51-0.81)	<.001	-0.530	0.59 (0.47-0.73)	<.001
Male Sex (yes)	-0.436	0.65 (0.36-1.17)	.149	-0.389	0.68 (0.40-1.14)	.14
Stroke onset to admission (per minute)	0.002	1.00 (1.00-1.00)	.142	0.001	1.00 (1.00-1.00)	.19
Admission NIHSS score (per 1 point)	-0.176	0.84 (0.79-0.88)	<.001	-0.174	0.84 (0.80-0.88)	<.001
Administration of IVT (yes)	0.967	2.63 (1.41-5.11)	.003	0.563	1.76 (1.03-3.04)	.04
ASPECTS 6-10 (yes)	-0.524	0.59 (0.09-2.70)	.541	-0.239	0.79 (0.19-2.76)	.72
Final mTICI 0 (Reference)						
Final mTICI 1	0.232	1.26 (0.48-3.11)	.622	0.247	1.28 (0.57-2.80)	.54
Final mTICI 2a	1.453	4.27 (2.28-8.25)	<.001	1.022	2.78 (1.60-4.89)	<.001

n = 423 patients included. A *P* value of less than 0.05 was considered significant.

Abbreviations:

mRS, modified Rankin Scale; NIHSS, National Institutes of Health Stroke Scale; IVT, Intravenous Thrombolysis; ASPECTS, Alberta Stroke Program Early CT Score; mTICI, modified Thrombolysis in Cerebral Infarction.

eTable 3. Multivariable Ordinal Logistic Regression Model

Used to assess the relationship between the distribution of modified Rankin Scale scores at 90 days and selected independent variables (shift analysis).

Independent Variables	90-day mRS score		
	β Coefficient	Adjusted Common Odds Ratio (95% CI)	<i>P</i>
Age (per 10 years)	-0.530	0.59 (0.50-0.68)	<.001
Male sex (yes)	0.008	1.01 (0.69-1.47)	.97
Stroke onset to admission (per minute)	0.001	1.00 (1.00-1.00)	.42
Admission NIHSS score (per 1 point)	-0.139	0.87 (0.84-0.90)	<.001
Administration of IVT (yes)	0.682	1.98 (1.35-2.92)	<.001
ASPECTS 6-10 (yes)	-0.647	0.52 (0.20-1.25)	.16
Final mTICI 0 (Reference)			
Final mTICI 1	0.437	1.55 (0.88-2.70)	.13
Final mTICI 2a	0.967	2.63 (1.75-3.97)	<.001

n = 423 patients included. A *P* value of less than 0.05 was considered significant.

Abbreviations:

mRS, modified Rankin Scale; NIHSS, National Institutes of Health Stroke Scale; IVT, Intravenous Thrombolysis; ASPECTS, Alberta Stroke Program Early CT Score; mTICI, modified Thrombolysis in Cerebral Infarction.