

Appendix e-1

table e-1a: Models for Very Good Outcome and Good Outcome using full NIHSS

Parameter	Model for Functionally Normal/Near-Normal Outcome (≤ 1)			Model for Functionally Independent Outcome (≤ 2)		
	Estimate	Standard Error	P-value	Estimate	Standard Error	P-value
Intercept	1.2714	0.9442	0.1782	3.6197	0.9845	0.0002
Thrombolytic therapy (y/n)	3.1286	0.8567	0.0003	1.4934	0.843	0.0765
Age (years)	0.0173	0.0113	0.1254	-0.00797	0.012	0.5062
Systolic Blood Pressure (mm/Hg)	-0.00522	0.00377	0.1661	-0.00543	0.00367	0.1392
History of Diabetes (y/n)	-0.7244	0.1348	<.0001	-0.8301	0.1282	<.0001
NIHSS	-0.00355	0.0573	0.9506	-0.0749	0.0561	0.1821
Time to Treatment (minutes)	0.000716	0.000928	0.4408	0.000447	0.000898	0.6188
Thrombolytic therapy * Systolic Blood Pressure	-0.0117	0.0052	0.0242	-0.00364	0.00513	0.4782
Thrombolytic therapy * Time to Treatment	-0.00428	0.0013	0.001	-0.00266	0.00127	0.0363
Age*NIHSS	-0.00287	0.000882	0.0011	-0.00168	0.00085	0.0475
ROC Area	c	0.784	2155.5	c	0.792	2219.337

table e-1b: Model for Severe Disability/Death Outcome using full NIHSS (≥ 5)

Parameter	Estimate	Standard Error	P-value
Intercept	-7.4127	0.5276	<.0001
Age (years)	0.0476	0.00662	<.0001
NIHSS	0.1409	0.0101	<.0001
Serum glucose ^a (mmol/L)	0.076	0.0161	<.0001
ROC Area	c	0.770	

^atruncated at 25 mmol/L

table e-2a: Models for Very Good Outcome and Good Outcome using 8-item Stroke Severity Score^a

Parameter	Model for Functionally Normal/Near-Normal Outcome (≤ 1)			Model for Functionally Independent Outcome (≤ 2)		
	Estimate	Standard Error	p-value	Estimate	Standard Error	p-value
Intercept	0.679044	0.87329	0.4369	2.811222	0.919365	0.0022
Thrombolytic therapy (y/n)	2.776024	0.843992	0.001	1.221631	0.833195	0.1426
Age (years)	0.003668	0.010182	0.7187	-0.01675	0.010799	0.1209
Systolic Blood Pressure (mm/Hg)	-0.00417	0.003713	0.2616	-0.00478	0.003625	0.1877
History of Diabetes (y/n)	-0.68761	0.132608	<.0001	-0.78552	0.126611	<.0001
Stroke Severity Score	-0.06103	0.10586	0.5643	-0.17016	0.105627	0.1072
Time to Treatment (minutes) ^b	0.003991	0.001166	0.0012	0.00388	0.00119	0.0022
Thrombolytic therapy * Systolic Blood Pressure	-0.01046	0.005116	0.0409	-0.00256	0.005061	0.6124
Thrombolytic therapy * Time to Treatment	-0.0037	0.001267	0.0035	-0.00228	0.001252	0.0686
Age* Stroke Severity Score	-0.00365	0.00163	0.0253	-0.00208	0.001599	0.194
ROC Area	c	0.756		c	0.771	

^a8 variable Stroke Severity Score is used, ^bTime to Treatment is truncated at 400 minutes

table e-2b: Model for Severe Disability/Death Outcome (≥ 5) using 8-item Stroke Severity Score^a

Parameter	Estimate	Standard Error	P-value
Intercept	-6.919617	0.530856	<.0001
Age (years)	0.048755	0.006643	<.0001
Stroke Severity Score	0.220714	0.024346	<.0001
Serum glucose (mmol/L)	0.074513	0.015837	<.0001
ROC Area	c	0.754	

^a8 variable Stroke Severity Score is used; ^btruncated at 25 mmol/L

table e-3: Model Performance in ECASS3 (Validation) Dataset

Outcome	Items in Stroke Severity Scale	Observed in validation data	Predicted	Total # with YES outcome	Bias (O-P)	ROC area for model in Validation Data	p-value from goodness-of-fit test (4 df)	TUFTS (PACE) ROC (Derivation Data)
Very good (mRS 0-1)	3-item	0.49554	0.46732	389	0.02822	0.749	0.4550	0.764
Good outcome (mRS 0-2)	3-item	0.65223	0.59383	512	0.0584	0.790	0.1442	0.781
Very good (mRS 0-1)	8-item	0.49554	0.4163	389	0.07924	0.752	0.0082	0.756
Good outcome (mRS 0-2)	8-item	0.65223	0.54177	512	0.11046	0.794	0.0002	0.771
Very good (mRS 0-1)	15-item	0.49554	0.48759	389	0.00795	0.760	0.6610	0.784
Good outcome (mRS 0-2)	15-item	0.65223	0.61238	512	0.03985	0.802	0.9813	0.792