ONLINE SUPPLEMENT

Profiles of the National Institutes of Health Stroke Scale Items as a Predictor of Patient Outcome

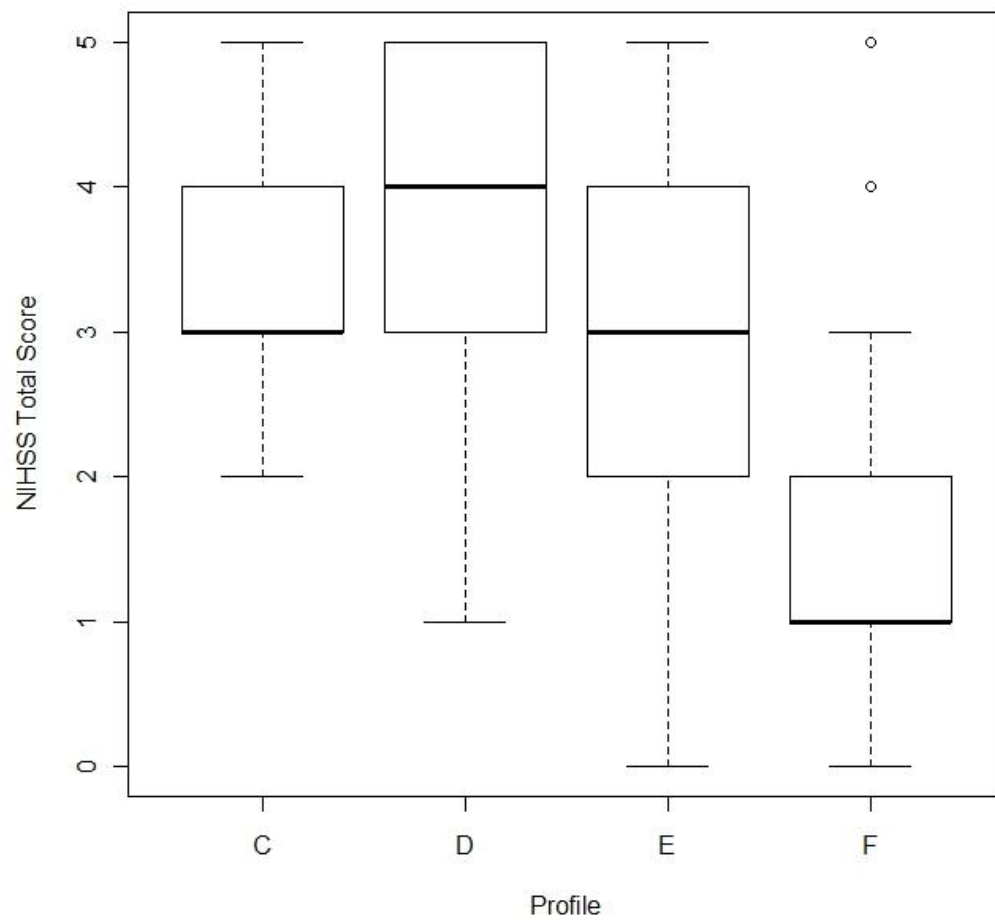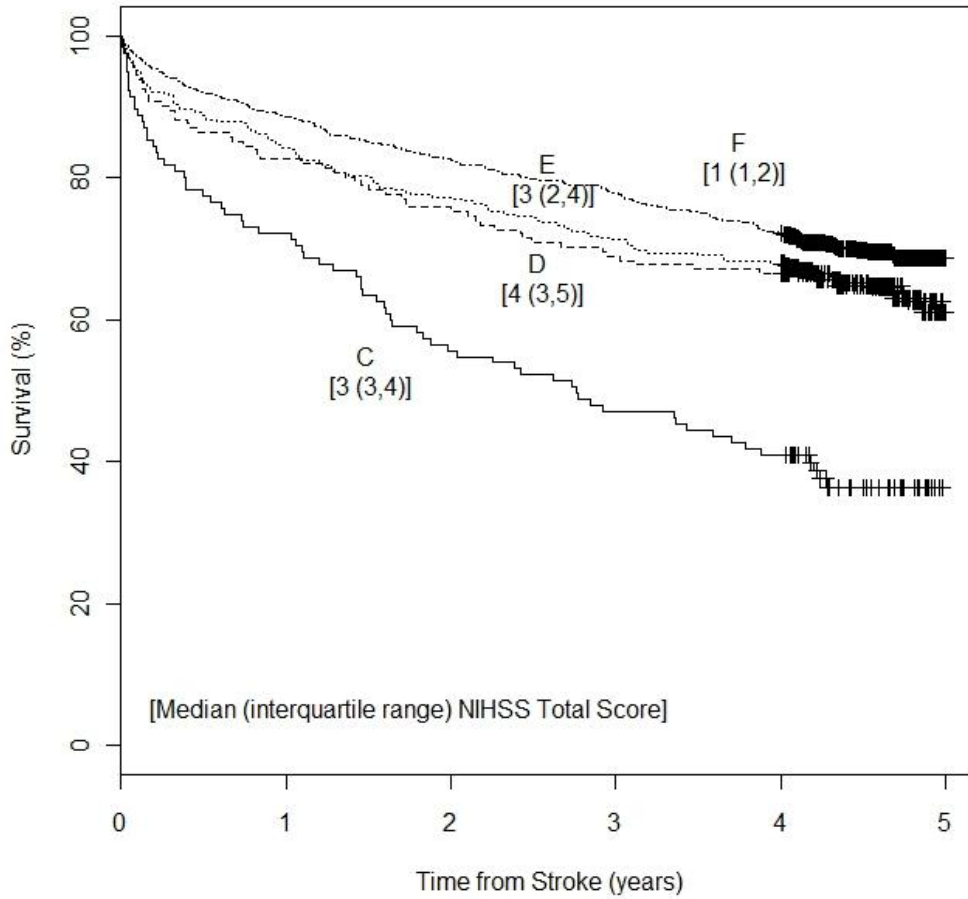Figure S1. Boxplots of NIHSS total score by profile among 2005 mild strokes defined by NIHSS total score <=5

Figure S2. Kaplan-Meier curves by profile among 2005 mild strokes defined by NIHSS total score <=5

Table S1. Outcome measures for 2005 mild strokes (n=1362)

Profile	Discharge Rankin ≤1 or back to baseline # of events	OR	95% CI	30 day mortality # of events	OR	95% CI	90 day mortality # of events	OR	95% CI	Survival # of events	HR	95% CI
C (n=115)	31	Ref	-	11	Ref	-	20	Ref	-	72	Ref	-
D (n=161)	44	1.11	(0.64, 1.95)	8	0.84	(0.31, 2.27)	16	0.83	(0.39, 1.77)	57	0.75	(0.53, 1.07)
E (n=330)	136	1.73	(1.06, 2.81)	15	0.68	(0.29, 1.59)	26	0.59	(0.30, 1.14)	117	0.71	(0.52, 0.96)
F (n=756)	384	1.63	(1.00, 2.66)	20	0.51	(0.21, 1.28)	39	0.49	(0.24, 0.97)	228	0.64	(0.47, 0.86)
P-value			0.049			0.53			0.18			0.03

Adjusted for age, gender, race, pre stroke modified Rankin, and rNIHSS total score.
OR indicates odds ratio; CI, confidence interval; HR, hazard ratio.

Table S2. Demographics and stroke risk factors of the ischemic strokes from 1999, overall and by profile

Characteristic	1999 IS Cases (N=2277)	Profile A (n=270)	B (n=252)	C (n=202)	D (n=430)	E (n=536)	F (n=587)	p-value
Age, median (IQR)	74 (65, 82)	77 (69, 85)	77 (68, 84)	78 (69, 85)	75 (65, 82)	72 (62, 80)	72 (62, 80)	<0.01
Race (black)	400 (18%)	40 (15%)	54 (21%)	30 (15%)	85 (20%)	94 (18%)	97 (17%)	0.23
Gender (female)	1262 (55%)	175 (65%)	161 (64%)	120 (59%)	217 (50%)	284 (53%)	305 (52%)	<0.01
Pre-stroke Rankin, median (IQR)	1 (0, 4)	3 (0, 4)	2 (0, 4)	3 (0, 4)	0 (0, 4)	0 (0, 3)	0 (0, 2)	<0.01
Hypertension	1612 (71%)	193 (71%)	171 (68%)	130 (64%)	312 (73%)	382 (71%)	424 (72%)	0.26
Diabetes	750 (33%)	80 (30%)	82 (33%)	59 (29%)	140 (33%)	187 (35%)	202 (34%)	0.53
Current smoking	483 (22%)	37 (15%)	55 (23%)	31 (16%)	107 (26%)	123 (24%)	130 (23%)	0.01
Atrial fibrillation	419 (18%)	83 (31%)	77 (31%)	42 (21%)	51 (12%)	81 (15%)	85 (15%)	<0.01
CAD	843 (37%)	109 (40%)	107 (43%)	81 (40%)	150 (35%)	198 (37%)	198 (34%)	0.12
CHF	410 (18%)	70 (26%)	66 (26%)	48 (24%)	56 (13%)	86 (16%)	84 (14%)	<0.01
Prior stroke	613 (27%)	94 (35%)	62 (25%)	49 (24%)	129 (30%)	153 (29%)	126 (21%)	<0.01
rNIHSS total score, median (IQR)	4 (2, 7)	14 (10, 17)	9 (7, 11)	5 (4, 7)	4.5 (3, 6)	3 (3, 4)	2 (1, 2)	<0.01

IQR indicates interquartile range; CAD, coronary artery disease; CHF, congestive heart failure; rNIHSS, retrospective National Institutes of Health Stroke Scale.
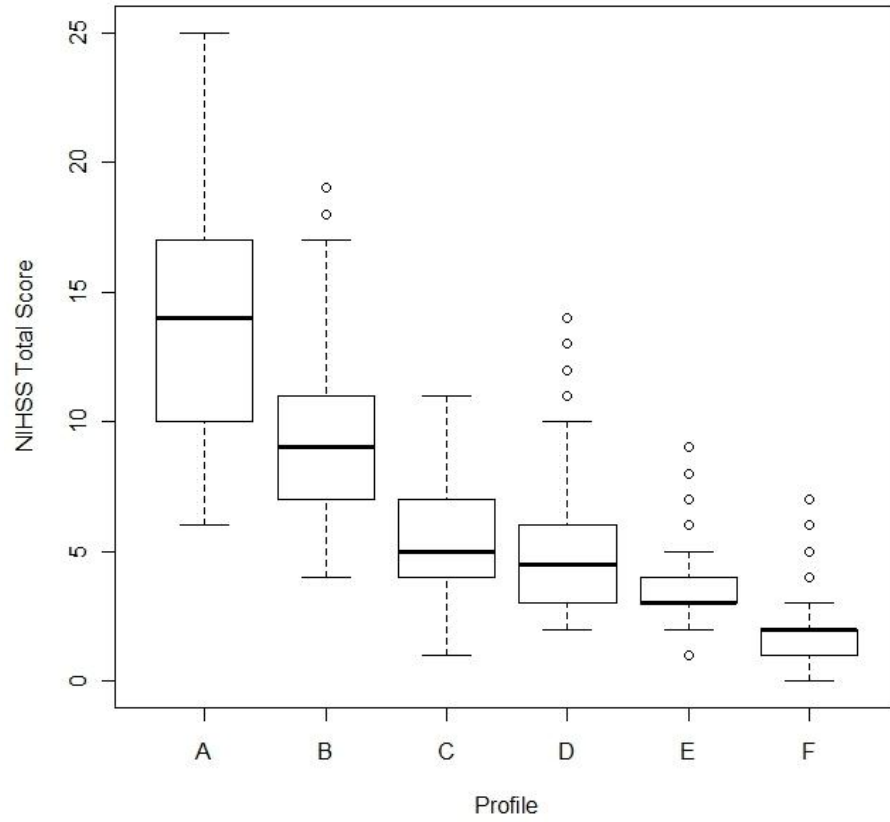
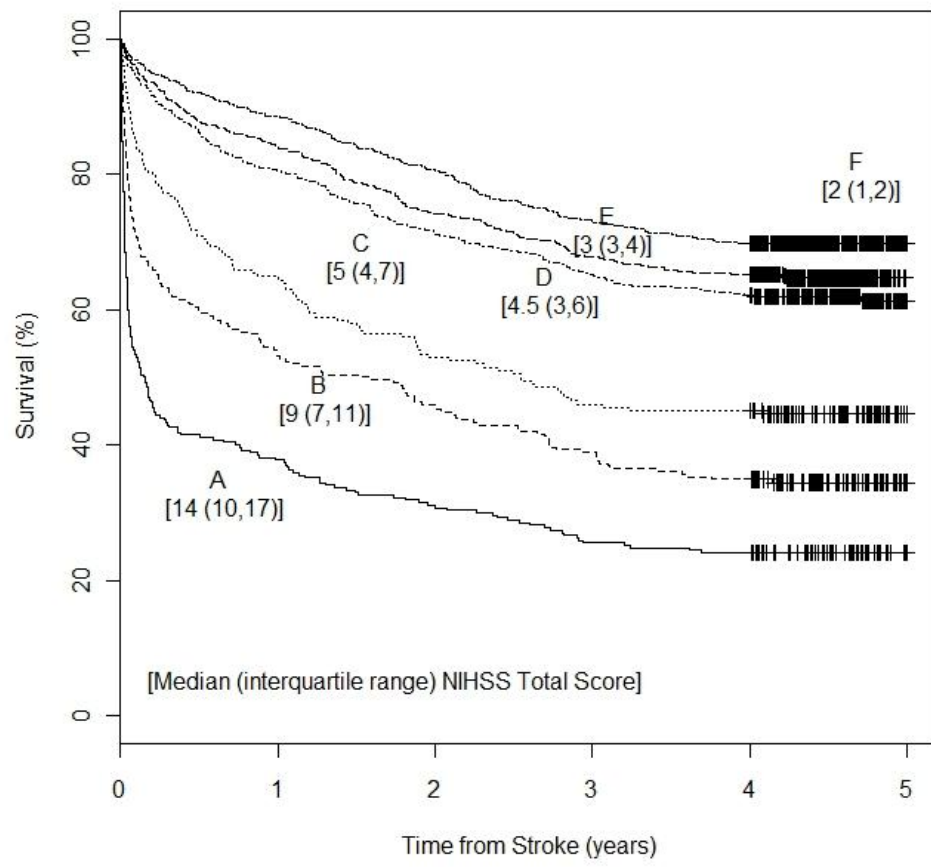Figure S3. Boxplots of NIHSS total score by profile for 1999 IS cases

Figure S4. Kaplan-Meier curves by profile for 1999 IS cases

Table S3. Outcome measures by NIHSS item profile for 1999 IS cases (n=2277)

Profile	Discharge Rankin ≤1 or back to baseline			30 day mortality			90 day mortality			Survival		
	# of events	OR	95% CI	# of events	OR	95% CI	# of events	OR	95% CI	# of events	HR	95% CI
A (n=270)	47	Ref	-	123	Ref	-	150	Ref	-	205	Ref	-
B (n=252)	57	1.40	0.87, 2.25	70	0.48	0.33, 0.70	90	0.45	0.31, 0.65	165	0.67	0.54, 0.82
C (n=202)	79	3.09	1.93, 4.95	28	0.19*	0.12, 0.30	44	0.20*	0.13, 0.31	112	0.44*	0.35, 0.55
D (n=430)	158	3.27	2.15, 4.97	21	0.07*	0.04, 0.11	42	0.09*	0.06, 0.14	165	0.29*	0.24, 0.36
E (n=536)	231	4.48	2.98, 6.75	21	0.06	0.03, 0.10	40	0.08	0.05, 0.11	189	0.29	0.24, 0.35
F (n=587)	344	10.09	6.66, 15.29	18	0.05	0.03, 0.08	31	0.05	0.03, 0.08	178	0.25	0.20, 0.30
P-value			<0.0001			<0.0001			<0.0001			<0.0001

Adjusted for age, gender, race, and pre stroke modified Rankin.

OR indicates odds ratio; CI, confidence interval; HR, hazard ratio.

*Profiles C and D significantly different with p-value < 0.05.