Supplemental Appendix

Influence of including patients with pre-morbid disability in acute stroke trials: the HeadPoST experience

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Table SI: Baseline characteristics according to categories of additional disability, defined by change in mRS scores from premorbid estimates to Day 7 (ΔmRS)

	Excluded		
	No	Yes	P value
Demographic			
Female	3222/8285 (38.9)	1207/2808 (43.0)	0.0001
Age, yr	67.7 (13.5)	68.7 (14.6)	<0.0001
Region of recruitment			
Australia/UK	3128/8285 (37.8)	1633/2808 (58.2)	<0.0001
South America	657/8285 (7.9)	253/2808 (9.0)	0.072
China (incl. Taiwan)	4019/8285 (48.5)	633/2808 (22.5)	<0.0001
India and Sri Lanka	481/8285 (5.8)	289/2808 (10.3)	<0.0001
Clinical			
Time from symptom onset to intervention,	15.0 (5.0 - 42.0)	11.0 (5.0 - 25.0)	<0.0001
Time from hospital admission to	9.0 (2.0 - 31.0)	5.0 (2.0 - 16.0)	<0.0001
Clinical diagnosis*			
AIS	1772/8285 (21.4%)	433/2808 (15.4)	<0.0001
ICH	240/8285 (2.9%)	47/2808 (1.7)	0.0004
NIHSS	4 (2-7)	8 (4-14)	<0.0001
GCS score	15 (14-15)	15 (13-15)	<0.0001
Systolic BP, mmHg	154.8 (27.1)	155.9 (29.3)	0.255
Diastolic BP, mmHg	86.5 (16.4)	86.8 (17.5)	0.955
Heart rate, bpm	76 (68-84)	77 (68-88)	<0.0001
Premorbid mRS 2-5	1984/8285 (24.0)	352/2786 (12.6)	<0.0001
Medical history			
Stroke	2087/8265 (25.3)	520/2793 (18.6)	<0.0001
Coronary artery disease	1154/8246 (14.0)	386/2777 (13.9)	0.901
Atrial fibrillation	774/8215 (9.4)	403/2759 (14.6)	<0.0001
Heart failure	280/8224 (3.4)	133/2773 (4.8)	0.001
Hypertension	5436/8274 (65.7)	1715/2787 (61.5)	<0.0001
Diabetes mellitus	2033/8266 (24.6)	619/2792 (22.2)	0.0095
Current smoker	1625/8211 (19.8)	500/2764 (18.1)	0.0503
Aspirin	3852/8281 (46.5)	948/2800 (33.9)	<0.0001
Other antiplatelet agent	1791/8279 (21.6)	421/2799 (15.0)	<0.0001
Anticoagulation	683/8277 (8.3)	268/2798 (9.6)	0.030

Data are n/N (%), mean (standard deviation) or median (1^{st} quartile – 3^{rd} quartile); P values were from chi-square and Kruskal-Wallis for categorical and continuous variables, respectively

AIS denotes acute ischemic stroke, BP blood pressure, GCS Glasgow coma scale, ICH intracerebral hemorrhage, mRS modified Rankin scale, NIHSS National Institutes of Health Stroke Scale.

*Clinician-reported from brain imaging and other investigations on hospital discharge.

Table SII: Baseline characteristics by pre-stroke function on the mRS

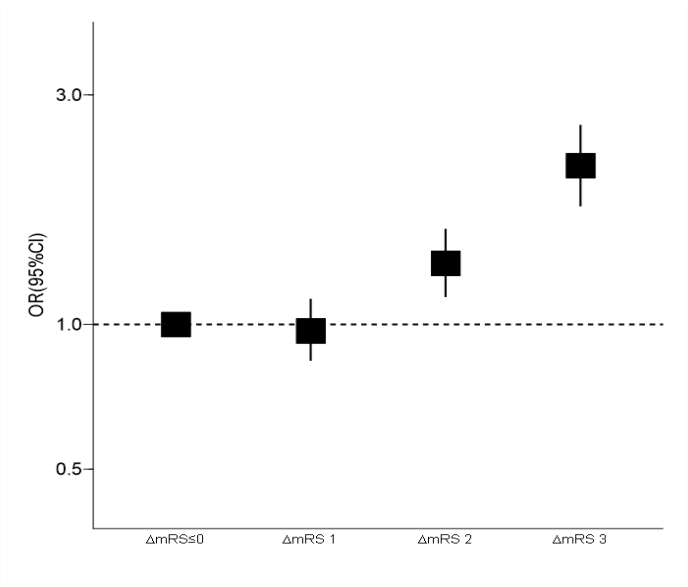
	mRS score		
	0-1	**≥2**	**P value**
Demographic			
Female	2280/6301 (36.2)	942/1984 (47.5)	<0.0001
Age, yr	66.2 (13.1)	72.5 (13.4)	<0.0001
Region of recruitment			
Australia/UK	2293/6301 (36.4)	835/1984 (42.1)	<0.0001
South America	478/6301 (7.6)	179/1984 (9.0)	
China (incl. Taiwan)	3141/6301 (49.8)	878/1984 (44.3)	
India and Sri Lanka	389/6301 (6.2)	92/1984 (4.6)	
Clinical			
Symptom onset to intervention, hrs	16.0 (5.0 - 43.0)	14.0 (5.0 - 37.0)	0.013
Hospital admission to intervention, hrs	9.0 (2.0 - 31.0)	8.0 (2.0 - 30.5)	0.767
Final diagnosis*			0.043
AIS	5471/6299 (86.9)	1691/1983 (85.3)	
ICH	440/6299 (7.0)	172/1983 (8.7)	
NIHSS score	3.0 (2.0 - 6.0)	6.0 (3.0 - 11.0)	<0.0001
GCS score	15.0 (15.0 - 15.0)	15.0 (13.0 - 15.0)	<0.0001
Systolic BP (mmHg)	154.9 (27.0)	154.3 (27.6)	0.246
Diastolic BP (mmHg)	86.9 (16.1)	85.2 (17.4)	<0.0001
Heart Rate (bpm)	76.0 (67.0 - 84.0)	76.0 (69.0 - 85.0)	0.0002
Medical history			
Previous stroke	1227/6286 (19.5)	860/1979 (43.5)	<0.0001
Coronary artery disease	784/6283 (12.5)	370/1963 (18.8)	<0.0001
Atrial fibrillation	491/6256 (7.8)	283/1959 (14.4)	<0.0001
Heart failure	148/6267 (2.4)	132/1957 (6.7)	<0.0001
Hypertension	4019/6293 (63.9)	1417/1981 (71.5)	<0.0001
Diabetes mellitus	1446/6287 (23.0)	587/1979 (29.7)	<0.0001
Current smoker	1350/6250 (21.6)	275/1961 (14.0)	<0.0001
Medications			
Aspirin	2849/6299 (45.2)	1003/1982 (50.6)	<0.0001
Other antiplatelet agent	1260/6299 (20.0)	531/1980 (26.8)	<0.0001
Anticoagulant	443/6295 (7.0)	240/1982 (12.1)	<0.0001

Data are n/N (%), mean (standard deviation) or median (1^{st} quartile – 3^{rd} quartile); P values were from chi-square and Kruskal-Wallis for categorical and continuous variables, respectively

AIS denotes acute ischemic stroke, BP blood pressure, GCS Glasgow coma scale, ICH intracerebral hemorrhage, mRS modified Rankin score, NIHSS National Institutes of Health Stroke Scale

*Clinician-reported from brain imaging and other investigations on hospital discharge.

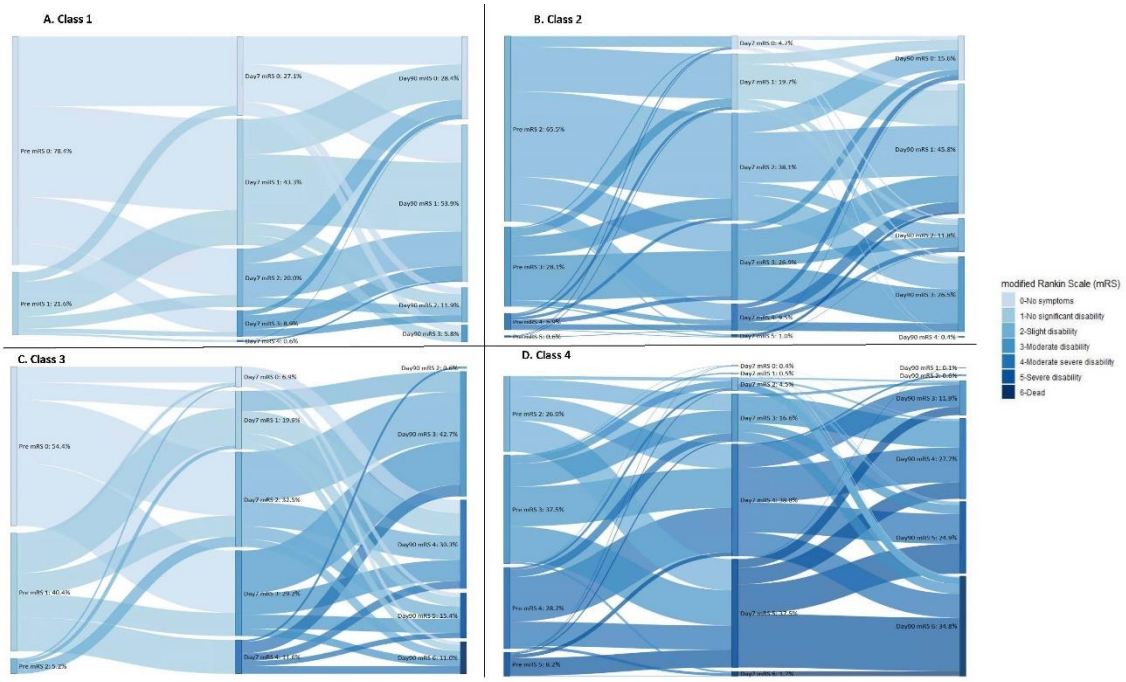
Figure SI Associations of mRS scores 3-6 at Day 90, by change from pre-morbid levels



Footnote: CI denotes confidence interval, mRS modified Rankin scale, OR odds ratio

Model adjusted for country, pre-morbid mRS, age, sex, baseline National Institutes of Health Stroke Scale score, time from symptom onset to intervention, and history of stroke, atrial fibrillation, current smoking, and prior antiplatelet and anticoagulant therapy. Solid boxes represent odds ratio for outcome. Vertical lines represent 95% confidence interval.

Figure SII. Sankey diagram of disability, pre-morbid and at Days 7 and 90, on the mRS by recovery pattern



Footnote: mRS denotes modified Rankin scale

Panel A, maintains stable good function; panel B, makes some meaningful recovery; panel C, shows decline; and panel D, maintains disability. Each color represents a different mRS score; the 3 horizontal positions indicate pre-morbid and Days 7 and 90 time points; the vertical ordering shows mRS scores 0 to 6.