

Table SI. Sensitivity analysis: BBS aOR stability across model specifications

Model specification	N	BBS aOR	95% CI	R ²	AIC
Base (no onset adjustment)	555	1.053	1.030–1.076	0.458	412.6
Enhanced (+log[Onset_T0])	555	1.053	1.030–1.076	0.506	379.4
+Institution (dummy)	555	1.048	1.024–1.072	0.538	359.9
+log(REHDUR)	546	1.055	1.032–1.078	0.505	376.3
Maximum (inst + REHDUR + onset)	546	1.050	1.026–1.074	0.538	356.1
FAC excluded	555	1.108	1.089–1.127	0.446	421.3
GEE (exchangeable)	555	1.046	1.023–1.069	—	—
NIHSS adjusted	121	1.060	—	—	—
LOCO (excl Centre A)	242	1.070	1.034–1.107	—	—
LOCO (excl Centre B)	398	1.062	1.038–1.087	—	—
LOCO (excl Centre C)	470	1.031	1.004–1.059	—	—

BBS–FAC Spearman $\rho = 0.856$ ($p < 0.001$). ICC (institution) = 0.077.

Bold row indicates the main analysis model. LOCO = leave-one-centre-out; GEE = generalised estimating equation.

Table SII. Patient characteristics by participating centre

Variable	Centre A (N=317)	Centre B (N=158)	Centre C (N=90)	p
Setting	Acute university	Subacute rehab	Subacute rehab	—
Age, years	61.2 ± 13.5	62.2 ± 14.6	59.8 ± 13.7	0.458
Male, n (%)	187 (59.0)	101 (63.9)	55 (61.1)	0.574
Ischaemic, n (%)	160 (50.5)	99 (62.7)	57 (63.3)	0.016
Onset to admission, median days	27	64	68	<0.001
Acute hospital stay, median days ^a	20	16	31	<0.001
Rehabilitation stay, median days ^b	47	201	180	<0.001
BBS at admission	20.0 ± 20.2	26.1 ± 19.3	36.1 ± 17.4	<0.001
FAC at admission → discharge	1.5 → 2.5	1.7 → 2.3	2.4 → 3.7	<0.001
Independent walking (%)	35.3	28.5	63.3	<0.001

Values are mean ± SD or n (%). p values from Kruskal–Wallis test (continuous) or chi-squared test (categorical). BBS: Berg Balance Scale; FAC: Functional Ambulation Category. ^a Acute hospital stay reflects the inpatient period at the acute facility prior to rehabilitation admission. Although Centres B and C are both subacute rehabilitation hospitals, acute hospital stay differed significantly between them (16 vs 31 days, $p < 0.001$), reflecting differences in referral catchment patterns; when grouped by institution type, acute hospital stay was comparable between the acute group (Centre A: 20 days) and the subacute group (Centres B+C: 19 days; $p = 0.562$). ^b Rehabilitation stay reflects the length of stay at the participating study centre. For the Korean rehabilitation pathway context, see Study design in Methods.

Table SIII. BBS predictive performance by centre type and stroke subtype

Subgroup	N	Walk %	AUC	Cutoff	Sens	Spec	NPV	BBS T0
By centre type								
Overall	565	37.9	0.899	24	0.907	0.744	0.929	24.2 ± 20.3
Centre A (acute)	317	35.3	0.922	10	0.973	0.776	0.981	20.0 ± 20.2
Centre B+C (subacute)	248	41.1	0.883	38	0.814	0.795	0.859	29.7 ± 19.2
By centre type × stroke subtype								
Centre A — Ischaemic	160	43.1	0.923	30	0.870	0.857	0.897	24.6 ± 20.5
Centre A — Haemorrhagic	157	27.4	0.915	12	0.953	0.825	0.979	15.2 ± 18.9
Centre B+C — Ischaemic	156	41.0	0.873	38	0.828	0.761	0.864	31.4 ± 17.9
Centre B+C — Haemorrhagic	92	41.3	0.904	41	0.789	0.870	0.855	26.8 ± 21.0

Centre A = acute university hospital (intra-hospital transfer to rehabilitation medicine); Centre B+C = subacute rehabilitation hospitals (inter-hospital transfer). Optimal cutoffs determined by Youden index. Walk % = proportion achieving independent walking (FAC ≥ 4). Sens = sensitivity; Spec = specificity; NPV = negative predictive value. BBS T0 values are mean ± SD.

Table SIV. Comparison of included and excluded patients from the original registry (N = 1,117)

Variable	Included (N=565)	Excluded (N=552)	p	Excluded n available
Age, years	61.3 ± 13.9	63.6 ± 14.2	0.008	549
Male, n (%)	343 (60.7)	296 (53.6)	0.020	552
Ischaemic, n (%)	316 (55.9)	323 (58.5)	0.396	551
BBS at admission	24.2 ± 20.3	22.6 ± 22.4	0.054	229
FAC at admission	1.7 ± 1.4	1.5 ± 1.5	0.014	361
MMSE at admission	18.3 ± 10.2	16.0 ± 10.9	<0.001	409
Hypertension, n (%)	403 (71.3)	374 (68.0)	0.253	550
Diabetes mellitus, n (%)	165 (29.2)	166 (30.2)	0.785	550
BBS T0 missing rate	0 (0%)	323 (58.5%)	—	—
FAC T1 missing rate	0 (0%)	253 (45.8%)	—	—

Primary reason for exclusion: BBS T0 missing (58.5% of excluded patients). Centre D excluded entirely (N = 262) due to complete BBS T1 missing. Values are mean ± SD or n (%). p values from Mann–Whitney U test (continuous) or chi-squared test (categorical).