

Table SI. Model fit statistics (Classes 1–14)

	LL	BIC	Δ BIC	AIC	Δ AIC	df	VLMR	Entropy R2
1-Cluster	-16908.55	34029.42	—	33877.10	—	1155.00	—	1.00
2-Cluster	-14578.96	29589.65	4439.77	29279.93	4597.17	1124.00	4659.17	0.90
3-Cluster	-13642.76	27936.65	1653.00	27469.52	1810.40	1093.00	1872.40	0.93
4-Cluster	-13066.62	27003.76	932.89	26379.23	1090.29	1062.00	1152.29	0.94
5-Cluster	-12730.43	26550.79	452.97	25768.86	610.37	1031.00	672.37	0.93
6-Cluster	-12475.91	26261.15	289.64	25321.82	447.04	1000.00	509.04	0.93
7-Cluster	-12286.42	26101.57	159.58	25004.83	316.98	969.00	378.98	0.93
8-Cluster	-12139.22	26026.59	74.99	24772.44	232.39	938.00	294.39	0.92
9-Cluster	-12075.25	26118.05	-91.46	24706.50	65.94	907.00	127.94	0.92
10-Cluster	-12012.72	26212.38	-94.33	24643.43	63.07	876.00	125.07	0.92
11-Cluster	-11957.36	26321.06	-108.68	24594.71	48.72	845.00	110.72	0.91
12-Cluster	-11923.10	26471.95	-150.89	24588.20	6.52	814.00	68.52	0.90
13-Cluster	-11886.58	26618.32	-146.37	24577.17	11.03	783.00	73.03	0.91
14-Cluster	-11848.12	26760.79	-142.47	24562.24	14.93	752.00	76.93	0.91

Comparison of LCA models with different latent classes based on model selection statistics. Abbreviations: AIC, Akaike information criterion (lower values imply better model fit); BIC, Bayesian information criterion (lower values imply better model fit); df, degree of freedom; LCA, Latent class analysis; LL, Log-likelihood; VLMR, Vuong-Lo-Mendell-Rubin likelihood ratio test; Entropy, higher values imply better classification quality.

Table SII. Class sizes (14 items)

Cluster Size	Cluster1	Cluster2	Cluster3	Cluster4	Cluster5	Cluster6	Cluster7	Cluster8	Overall
Indicators	20%	18%	14%	13%	11%	10%	9%	5%	
Sex									
Male	62%	59%	62%	59%	67%	67%	54%	59%	61%
Female	39%	41%	38%	41%	33%	33%	46%	41%	39%
Age-group									
54 ≥	26%	15%	18%	11%	17%	8%	6%	10%	15%
55-64	26%	15%	29%	15%	26%	12%	20%	34%	22%
65-74	26%	31%	28%	30%	27%	31%	31%	26%	29%
75-84	19%	29%	23%	33%	24%	43%	37%	27%	28%
≥ 85	3%	10%	2%	11%	6%	5%	7%	2%	6%
Body side with post-stroke paralysis									
right	44%	55%	36%	35%	58%	66%	61%	27%	48%
left	43%	38%	53%	55%	18%	21%	34%	56%	40%
both	2%	4%	4%	7%	2%	8%	4%	9%	5%
nothing	10%	4%	7%	2%	22%	6%	0%	9%	7%
FIM eating									
complete Dependence(1,2)	2%	4%	2%	23%	2%	12%	73%	17%	13%
Modified Dependence(3-5)	8%	43%	22%	60%	11%	56%	26%	38%	31%
Independence(6,7)	90%	53%	76%	17%	87%	32%	2%	45%	55%
FIM toileting									
complete Dependence(1,2)	1%	31%	9%	93%	0%	40%	100%	89%	37%
Modified Dependence(3-5)	9%	64%	86%	7%	10%	55%	0%	10%	34%
Independence(6,7)	90%	5%	6%	0%	90%	4%	0%	1%	30%
FIM transfer(bed/chair/wheelchair)									
complete Dependence(1,2)	0%	1%	0%	84%	0%	0%	96%	56%	23%
Modified Dependence(3-5)	0%	97%	94%	16%	1%	90%	4%	44%	45%
Independence(6,7)	100%	3%	6%	0%	99%	10%	0%	0%	33%
FIM transfer(toilet)									
complete Dependence(1,2)	0%	1%	0%	98%	0%	3%	100%	72%	26%
Modified Dependence(3-5)	7%	99%	99%	2%	5%	93%	0%	28%	45%
Independence(6,7)	92%	0%	1%	0%	95%	4%	0%	0%	29%
FIM transfer(bath/shower)									
complete Dependence(1,2)	12%	52%	36%	99%	9%	54%	99%	100%	51%
Modified Dependence(3-5)	62%	48%	63%	1%	63%	46%	1%	0%	41%
Independence(6,7)	26%	0%	1%	0%	28%	0%	0%	0%	8%
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	23%	51%	47%	94%	20%	53%	99%	91%	54%
Modified Dependence(3-5)	27%	48%	49%	5%	26%	45%	1%	9%	29%
Independence(6,7)	50%	1%	4%	1%	54%	3%	0%	0%	17%
FIM comprehension									
complete Dependence(1,2)	0%	2%	0%	10%	11%	35%	83%	0%	14%
Modified Dependence(3-5)	3%	78%	6%	80%	64%	59%	17%	4%	41%
Independence(6,7)	97%	21%	94%	10%	25%	6%	0%	96%	46%
FIM expression									
complete Dependence(1,2)	1%	6%	0%	20%	18%	44%	84%	0%	18%
Modified Dependence(3-5)	7%	67%	8%	66%	60%	51%	15%	18%	37%
Independence(6,7)	93%	27%	92%	14%	21%	5%	1%	82%	45%
FIM social interaction									
complete Dependence(1,2)	0%	2%	1%	18%	7%	50%	84%	2%	16%
Modified Dependence(3-5)	3%	66%	13%	67%	61%	42%	9%	6%	35%
Independence(6,7)	97%	32%	86%	15%	32%	8%	7%	93%	49%
FIM problem solving									
complete Dependence(1,2)	1%	2%	2%	35%	13%	85%	100%	5%	25%
Modified Dependence(3-5)	16%	98%	37%	64%	82%	14%	0%	17%	46%
Independence(6,7)	83%	0%	61%	1%	5%	1%	0%	78%	30%
FIM memory									
complete Dependence(1,2)	0%	5%	1%	23%	12%	61%	98%	0%	20%
Modified Dependence(3-5)	8%	90%	18%	74%	73%	38%	2%	15%	43%
Independence(6,7)	92%	5%	81%	3%	16%	2%	0%	85%	37%

Abbreviations: FIM; Functional Independence Measure

Table III. Model fit statistics (Classes 1–9)

	LL	BIC	Δ BIC	AIC	Δ AIC	df	VLMR	Entropy R2
1-Class	-11439,51	23027,65	—	22921,03	—	1164,00	—	1,00
2-Class	-10155,90	20616,13	2411,52	20397,80	2523,23	1142,00	2567,23	0,84
3-Class	-9692,19	19844,42	771,71	19514,38	883,42	1120,00	927,42	0,88
4-Class	-9432,09	19479,92	364,50	19038,18	476,20	1098,00	520,20	0,89
5-Class	-9288,34	19348,12	131,80	18794,67	243,51	1076,00	287,51	0,88
6-Class	-9153,48	19234,11	114,01	18568,96	225,72	1054,00	269,72	0,87
7-Class	-9058,15	19199,16	34,95	18422,30	146,65	1032,00	190,65	0,87
8-Class	-8989,73	19218,01	-18,86	18329,45	92,85	1010,00	136,85	0,87
9-Class	-8966,28	19326,82	-108,81	18326,55	2,90	988,00	46,90	0,87

Based on model selection statistics, comparison of LCA models with different latent classes. Abbreviations: AIC, Akaike information criterion (lower values imply better model fit); BIC, Bayesian information criterion (lower values imply better model fit); df, degree of freedom; LCA, Latent class analysis; LL, Log-likelihood; VLMR, Vuong-Lo-Mendell-Rubin likelihood ratio test; Entropy, higher values imply better classification quality

Table SIV. Characteristics of patients in all classes

Continuous variable, Mean(SD)	Class1 (N=226)								p-value
	Usual care		Self exercise		Hospital-staff training		Both		
	N=42		N=41		N=3		N=140		
Age	69.6 (12.4)		61.1 (14.1)		67.0 (17.1)		62.2 (13.4)		0.010
Length of stay, days	67.2 (44.9)		68.5 (32.1)		38.3 (6.0)		74.4 (37.8)		0.278
Intervention by PT, OT and ST(units/day)	4.8 (1.8)		5.5 (1.7)		5.0 (1.8)		4.8 (2.0)		0.295
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	79.1 (9.6)	85.8 (5.3)	80.9 (7.9)	87.0 (3.9)	85.0 (8.5)	88.0 (4.2)	74.9 (9.0)	83.8 (5.8)	* 0.000
Cognitive-FIM(admission)	31.5 (3.3)	32.1 (3.0)	32.1 (3.2)	32.9 (3.0)	29.0 (4.0)	30.0 (3.6)	32.3 (3.0)	33.5 (2.1)	0.188
FIM(total)(admission)	110.1 (10.3)	117.1 (8.3)	112.0 (9.6)	119.9 (5.6)	107.0 (11.8)	110.3 (12.0)	107.0 (9.8)	117.1 (6.8)	0.024
Category variable, N(%)									
Sex male	17 (40.5%)		16 (39.0%)		2 (66.7%)		47 (33.6%)		0.553
Age-group									
≥54	5 (11.9%)		11 (26.8%)		1 (33.3%)		38 (27.1%)		0.316
55-64	9 (21.4%)		10 (24.4%)		0 (0.0%)		33 (23.6%)		
65-74	10 (23.8%)		14 (34.1%)		1 (33.3%)		40 (28.6%)		
75-84	15 (35.7%)		5 (12.2%)		1 (33.3%)		25 (17.9%)		
≥85	3 (7.1%)		1 (2.4%)		0 (0.0%)		4 (2.9%)		
Missing	0(0%)		0(0%)		0(0%)		0(0%)		
Major Stroke Types									
cerebral infarction	29 (69.0%)		27 (65.9%)		2 (66.7%)		100 (71.4%)		0.303
cerebral hemorrhage	8 (19.0%)		10 (24.4%)		0 (0.0%)		31 (22.1%)		
subarachnoid hemorrhage	1 (2.4%)		2 (4.9%)		1 (33.3%)		7 (5.0%)		
Missing	4 (9.5%)		2 (4.9%)		0 (0.0%)		2 (1.4%)		
Body side with post-stroke paralysis									
right	17 (40.5%)		19 (46.3%)		1 (33.3%)		58 (41.4%)		0.774
left	19 (45.2%)		19 (46.3%)		2 (66.7%)		52 (37.1%)		
both	0 (0.0%)		1 (2.4%)		0 (0.0%)		1 (0.7%)		
nothing	6 (14.3%)		2 (4.9%)		0 (0.0%)		20 (14.3%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		9 (6.4%)		
Conducting conferences									
periodic	32 (76.2%)		26 (63.4%)		0 (0.0%)		72 (51.4%)		* 0.003
periodic and as needed	9 (21.4%)		14 (34.1%)		3 (100.0%)		67 (47.9%)		
Missing	1 (2.4%)		1 (2.4%)		0 (0.0%)		1 (0.7%)		
Orthotic prescriptions									
Yes	2 (4.8%)		3 (7.3%)		0 (0.0%)		22 (15.7%)		* 0.027
No	39 (92.9%)		38 (92.7%)		2 (66.7%)		80 (57.1%)		
Missing	1 (2.4%)		0 (0.0%)		1 (33.3%)		38 (27.1%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	0.172
Modified Dependence(3-5)	0 (0.0%)	0 (0.0%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (10.7%)	7 (5.0%)	
Independence(6,7)	41 (97.6%)	42 (100.0%)	40 (97.6%)	41 (100.0%)	3 (100.0%)	3 (100.0%)	124 (88.6%)	133 (95.0%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM toileting									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.908
Modified Dependence(3-5)	2 (4.8%)	0 (0.0%)	3 (7.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (5.0%)	0 (0.0%)	
Independence(6,7)	40 (95.2%)	42 (100.0%)	38 (92.7%)	41 (100.0%)	3 (100.0%)	3 (100.0%)	133 (95.0%)	140 (100.0%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM transfer(toilet)									
complete Dependence(1,2)	0(0%)	0 (0.0%)	0(0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.805
Modified Dependence(3-5)	1 (2.4%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (1.4%)	1 (0.7%)	
Independence(6,7)	40 (95.2%)	40 (95.2%)	41 (100.0%)	41 (100.0%)	3 (100.0%)	3 (100.0%)	138 (98.6%)	139 (99.3%)	
Missing	1 (2.4%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	2 (4.8%)	0 (0.0%)	2 (4.9%)	0 (0.0%)	1 (33.3%)	1 (33.3%)	38 (27.1%)	31 (22.1%)	* 0.005
Modified Dependence(3-5)	10 (23.8%)	1 (2.4%)	10 (24.4%)	2 (4.9%)	1 (33.3%)	0 (0.0%)	33 (23.6%)	6 (4.3%)	
Independence(6,7)	30 (71.4%)	40 (95.2%)	29 (70.7%)	39 (95.1%)	1 (33.3%)	2 (66.7%)	69 (49.3%)	103 (73.6%)	
Missing	0 (0.0%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM comprehension									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	* 0.001
Modified Dependence(3-5)	5 (11.9%)	3 (7.1%)	3 (7.3%)	2 (4.9%)	2 (66.7%)	2 (66.7%)	7 (5.0%)	3 (2.1%)	
Independence(6,7)	37 (88.1%)	39 (92.9%)	37 (90.2%)	39 (95.1%)	1 (33.3%)	1 (33.3%)	133 (95.0%)	137 (97.9%)	
Missing	0 (0.0%)	0 (0.0%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM social interaction									
complete Dependence(1,2)	0(0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.808
Modified Dependence(3-5)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (2.1%)	2 (1.4%)	
Independence(6,7)	41 (97.6%)	42 (100.0%)	40 (97.6%)	41 (100.0%)	3 (100.0%)	3 (100.0%)	137 (97.9%)	138 (98.6%)	
Missing	0 (0.0%)	0 (0.0%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM problem solving									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	* 0.024
Modified Dependence(3-5)	12 (28.6%)	12 (28.6%)	8 (19.5%)	8 (19.5%)	3 (100.0%)	2 (66.7%)	24 (17.1%)	13 (9.3%)	
Independence(6,7)	30 (71.4%)	30 (71.4%)	32 (78.0%)	33 (80.5%)	0 (0.0%)	1 (33.3%)	115 (82.1%)	127 (90.7%)	
Missing	0 (0.0%)	0 (0.0%)	1 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class2 (N=226)								p-value	
	Usual care		Self exercise		Hospital-staff training		Both			
	N=50		N=21		N=21		N=134			
Age	74.3 (10.3)		71.0 (11.9)		76.4 (10.1)		67.0 (14.1)		* 0.001	
Length of stay, days	100.1 (34.4)		108.5 (29.8)		93.2 (40.2)		97.9 (38.8)		0.568	
Intervention by PT, OT and ST(units/day)	5.4 (2.0)		5.4 (1.7)		4.0 (1.4)		4.9 (1.8)		0.015	
	admission	discharge	admission	discharge	admission	discharge	admission	discharge		
Motor-FIM(admission)	54.8 (10.0)	71.4 (14.2)	55.3 (8.7)	75.8 (9.9)	44.9 (9.5)	69.9 (9.6)	51.9 (10.3)	77.0 (7.9)	* 0.001	
Cognitive-FIM(admission)	22.3 (4.7)	24.9 (5.5)	23.5 (4.5)	27.3 (5.5)	21.3 (3.6)	24.2 (4.3)	23.5 (3.7)	29.0 (3.9)	0.050	
FIM(total)(admission)	77.1 (12.2)	96.5 (17.9)	77.2 (10.2)	101.8 (12.8)	66.2 (9.6)	94.1 (11.2)	74.7 (12.4)	104.9 (11.3)	* 0.004	
Category variable, N(%)										
Sex male	20 (40.0%)		4 (19.0%)		5 (23.8%)		58 (43.6%)		0.080	
Age-group										
≥54	2 (4.0%)		2 (9.5%)		0 (0.0%)		29 (21.6%)		* 0.026	
55-64	6 (12.0%)		4 (19.0%)		3 (14.3%)		19 (14.2%)			
65-74	15 (30.0%)		6 (28.6%)		6 (28.6%)		44 (32.8%)			
75-84	18 (36.0%)		7 (33.3%)		6 (28.6%)		30 (22.4%)			
≥85	9 (18.0%)		2 (9.5%)		6 (28.6%)		11 (8.2%)			
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		1 (0.7%)			
Major Stroke Types										
cerebral infarction	29 (58.0%)		8 (38.1%)		17 (81.0%)		84 (62.7%)		* 0.045	
cerebral hemorrhage	20 (40.0%)		10 (47.6%)		2 (9.5%)		39 (29.1%)			
subarachnoid hemorrhage	0 (0.0%)		2 (9.5%)		2 (9.5%)		8 (6.0%)			
Missing	1 (2.0%)		1 (4.8%)		0 (0.0%)		3 (2.2%)			
Body side with post-stroke paralysis										
right	33 (66.0%)		12 (57.1%)		9 (42.9%)		69 (51.5%)		0.679	
left	13 (26.0%)		7 (33.3%)		8 (38.1%)		39 (29.1%)			
both	1 (2.0%)		0 (0.0%)		2 (9.5%)		4 (3.0%)			
nothing	3 (6.0%)		2 (9.5%)		2 (9.5%)		6 (4.5%)			
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		16 (11.9%)			
Conducting conferences										
periodic	32 (64.0%)		17 (81.0%)		13 (61.9%)		69 (51.5%)		0.073	
periodic and as needed	17 (34.0%)		4 (19.0%)		8 (38.1%)		61 (45.5%)			
Missing	1 (2.0%)		0 (0.0%)		0 (0.0%)		4 (3.0%)			
Orthotic prescriptions										
Yes	9 (18.0%)		4 (19.0%)		3 (14.3%)		40 (29.9%)		0.012	
No	41 (82.0%)		17 (81.0%)		13 (61.9%)		58 (43.3%)			
Missing	0 (0.0%)		0 (0.0%)		5 (23.8%)		36 (26.9%)			
	admission	discharge	admission	discharge	admission	discharge	admission	discharge		
FIM eating										
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (9.5%)	2 (9.5%)	4 (3.0%)	1 (0.7%)	* 0.001	
Modified Dependence(3-5)	7 (14.0%)	2 (4.0%)	4 (19.0%)	1 (4.8%)	10 (47.6%)	2 (9.5%)	55 (41.0%)	11 (8.2%)		
Independence(6,7)	43 (86.0%)	48 (96.0%)	17 (81.0%)	20 (95.2%)	9 (42.9%)	17 (81.0%)	74 (55.2%)	121 (90.3%)		
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	1 (0.7%)		
FIM toileting										
complete Dependence(1,2)	5 (10.0%)	2 (4.0%)	0 (0.0%)	0 (0.0%)	3 (14.3%)	0 (0.0%)	17 (12.7%)	0 (0.0%)	0.478	
Modified Dependence(3-5)	43 (86.0%)	13 (26.0%)	18 (85.7%)	4 (19.0%)	16 (76.2%)	10 (47.6%)	103 (76.9%)	7 (5.2%)		
Independence(6,7)	2 (4.0%)	35 (70.0%)	3 (14.3%)	17 (81.0%)	2 (9.5%)	11 (52.4%)	13 (9.7%)	126 (94.0%)		
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	1 (0.7%)		
FIM transfer(toilet)										
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.814	
Modified Dependence(3-5)	49 (98.0%)	13 (26.0%)	21 (100.0%)	4 (19.0%)	21 (100.0%)	5 (23.8%)	130 (97.0%)	9 (6.7%)		
Independence(6,7)	1 (2.0%)	37 (74.0%)	0 (0.0%)	17 (81.0%)	0 (0.0%)	16 (76.2%)	3 (2.2%)	124 (92.5%)		
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	1 (0.7%)		
FIM locomotion(walk/wheelchair)										
complete Dependence(1,2)	10 (20.0%)	4 (8.0%)	4 (19.0%)	0 (0.0%)	11 (52.4%)	4 (19.0%)	56 (41.8%)	13 (9.7%)	* 0.001	
Modified Dependence(3-5)	37 (74.0%)	11 (22.0%)	16 (76.2%)	5 (23.8%)	10 (47.6%)	8 (38.1%)	77 (57.5%)	34 (25.4%)		
Independence(6,7)	3 (6.0%)	35 (70.0%)	0 (0.0%)	16 (76.2%)	0 (0.0%)	9 (42.9%)	0 (0.0%)	85 (63.4%)		
Missing	0 (0.0%)	0 (0.0%)	1 (4.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	2 (1.5%)		
FIM comprehension										
complete Dependence(1,2)	2 (4.0%)	3 (6.0%)	1 (4.8%)	1 (4.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.093	
Modified Dependence(3-5)	31 (62.0%)	20 (40.0%)	12 (57.1%)	6 (28.6%)	18 (85.7%)	14 (66.7%)	97 (72.4%)	41 (30.6%)		
Independence(6,7)	17 (34.0%)	27 (54.0%)	7 (33.3%)	13 (61.9%)	3 (14.3%)	7 (33.3%)	35 (26.1%)	91 (67.9%)		
Missing	0 (0.0%)	0 (0.0%)	1 (4.8%)	1 (4.8%)	0 (0.0%)	0 (0.0%)	2 (1.5%)	2 (1.5%)		
FIM social interaction										
complete Dependence(1,2)	1 (2.0%)	1 (2.0%)	0 (0.0%)	0 (0.0%)	1 (4.8%)	0 (0.0%)	3 (2.2%)	2 (1.5%)	0.895	
Modified Dependence(3-5)	34 (68.0%)	27 (54.0%)	13 (61.9%)	9 (42.9%)	16 (76.2%)	12 (57.1%)	91 (67.9%)	21 (15.7%)		
Independence(6,7)	15 (30.0%)	22 (44.0%)	7 (33.3%)	11 (52.4%)	4 (19.0%)	9 (42.9%)	38 (28.4%)	109 (81.3%)		
Missing	0 (0.0%)	0 (0.0%)	1 (4.8%)	1 (4.8%)	0 (0.0%)	0 (0.0%)	2 (1.5%)	2 (1.5%)		
FIM problem solving										
complete Dependence(1,2)	6 (12.0%)	3 (6.0%)	0 (0.0%)	0 (0.0%)	2 (9.5%)	2 (9.5%)	5 (3.7%)	2 (1.5%)	0.332	
Modified Dependence(3-5)	44 (88.0%)	38 (76.0%)	20 (95.2%)	14 (66.7%)	19 (90.5%)	15 (71.4%)	126 (94.0%)	73 (54.5%)		
Independence(6,7)	0 (0.0%)	9 (18.0%)	0 (0.0%)	6 (28.6%)	0 (0.0%)	4 (19.0%)	1 (0.7%)	57 (42.5%)		
Missing	0 (0.0%)	0 (0.0%)	1 (4.8%)	1 (4.8%)	0 (0.0%)	0 (0.0%)	2 (1.5%)	2 (1.5%)		

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class3 (N=214)								p-value
	Usual care N=49		Self exercise N=8		Hospital-staff training N=39		Both N=118		
Age	73.0 (11.6)		73.4 (16.2)		75.4 (10.2)		65.7 (12.8)		* <0.001
Length of stay, days	113.4 (45.7)		122.8 (45.0)		110.9 (41.5)		128.2 (31.2)		0.028
Intervention by PT, OT and ST(units/day)	4.2 (1.6)		6.9 (0.9)		3.6 (1.6)		4.9 (1.7)		* <0.001
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	24.6 (7.7)	51.6 (22.6)	29.4 (6.5)	63.0 (13.3)	23.5 (7.9)	48.8 (19.0)	28.7 (9.4)	63.0 (15.4)	* 0.003
Cognitive-FIM(admission)	19.1 (4.7)	22.8 (7.2)	19.8 (4.1)	23.6 (5.4)	18.4 (4.6)	21.1 (5.2)	20.6 (4.9)	27.5 (5.0)	0.071
FIM(total)(admission)	43.4 (9.0)	73.4 (27.6)	46.5 (9.9)	85.1 (18.6)	42.1 (10.3)	70.1 (22.0)	49.0 (11.3)	89.7 (18.9)	* 0.001
Category variable, N(%)									
Sex male	24 (49.0%)		2 (25.0%)		13 (33.3%)		53 (44.9%)		0.329
Age-group									
≥54	3 (6.1%)		1 (12.5%)		3 (7.7%)		19 (16.1%)		* 0.001
55-64	4 (8.2%)		1 (12.5%)		3 (7.7%)		30 (25.4%)		
65-74	17 (34.7%)		0 (0.0%)		9 (23.1%)		35 (29.7%)		
75-84	17 (34.7%)		5 (62.5%)		16 (41.0%)		31 (26.3%)		
≥85	8 (16.3%)		1 (12.5%)		8 (20.5%)		3 (2.5%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Major Stroke Types									
cerebral infarction	32 (65.3%)		6 (75.0%)		24 (61.5%)		62 (52.5%)		0.562
cerebral hemorrhage	15 (30.6%)		2 (25.0%)		13 (33.3%)		50 (42.4%)		
subarachnoid hemorrhage	1 (2.0%)		0 (0.0%)		2 (5.1%)		5 (4.2%)		
Missing	1 (2.0%)		0 (0.0%)		0 (0.0%)		1 (0.8%)		
Body side with post-stroke paralysis									
right	19 (38.8%)		2 (25.0%)		12 (30.8%)		37 (31.4%)		0.215
left	28 (57.1%)		4 (50.0%)		19 (48.7%)		53 (44.9%)		
both	2 (4.1%)		0 (0.0%)		5 (12.8%)		8 (6.8%)		
nothing	0 (0.0%)		1 (12.5%)		2 (5.1%)		1 (0.8%)		
Missing	0 (0.0%)		1 (12.5%)		1 (2.6%)		19 (16.1%)		
Conducting conferences									
periodic	37 (75.5%)		5 (62.5%)		9 (23.1%)		68 (57.6%)		* <0.001
periodic and as needed	11 (22.4%)		3 (37.5%)		30 (76.9%)		50 (42.4%)		
Missing	1 (2.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Orthotic prescriptions									
Yes	14 (28.6%)		4 (50.0%)		6 (15.4%)		49 (41.5%)		* 0.001
No	35 (71.4%)		4 (50.0%)		10 (25.6%)		28 (23.7%)		
Missing	0 (0.0%)		0 (0.0%)		23 (59.0%)		41 (34.7%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	18 (36.7%)	2 (4.1%)	1 (12.5%)	0 (0.0%)	6 (15.4%)	0 (0.0%)	13 (11.0%)	3 (2.5%)	* <0.001
Modified Dependence(3-5)	19 (38.8%)	12 (24.5%)	3 (37.5%)	1 (12.5%)	23 (59.0%)	19 (48.7%)	84 (71.2%)	35 (29.7%)	
Independence(6,7)	12 (24.5%)	35 (71.4%)	4 (50.0%)	7 (87.5%)	10 (25.6%)	20 (51.3%)	21 (17.8%)	79 (66.9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.8%)	
FIM toileting									
complete Dependence(1,2)	45 (91.8%)	20 (40.8%)	6 (75.0%)	1 (12.5%)	35 (89.7%)	15 (38.5%)	112 (94.9%)	12 (10.2%)	0.057
Modified Dependence(3-5)	3 (6.1%)	14 (28.6%)	2 (25.0%)	4 (50.0%)	4 (10.3%)	13 (33.3%)	4 (3.4%)	34 (28.8%)	
Independence(6,7)	0(0%)	15 (30.6%)	0 (0.0%)	3 (37.5%)	0 (0.0%)	11 (28.2%)	0 (0.0%)	71 (60.2%)	
Missing	1 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (1.7%)	1 (0.8%)	
FIM transfer(toilet)									
complete Dependence(1,2)	38 (77.6%)	10 (20.4%)	6 (75.0%)	0 (0.0%)	34 (87.2%)	9 (23.1%)	75 (63.6%)	3 (2.5%)	* 0.019
Modified Dependence(3-5)	11 (22.4%)	22 (44.9%)	1 (12.5%)	5 (62.5%)	5 (12.8%)	16 (41.0%)	43 (36.4%)	48 (40.7%)	
Independence(6,7)	0 (0.0%)	16 (32.7%)	0 (0.0%)	2 (25.0%)	0 (0.0%)	14 (35.9%)	0 (0.0%)	67 (56.8%)	
Missing	0 (0.0%)	1 (2.0%)	1 (12.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	41 (83.7%)	16 (32.7%)	6 (75.0%)	0 (0.0%)	36 (92.3%)	17 (43.6%)	116 (98.3%)	30 (25.4%)	* 0.025
Modified Dependence(3-5)	7 (14.3%)	17 (34.7%)	1 (12.5%)	3 (37.5%)	3 (7.7%)	16 (41.0%)	1 (0.8%)	49 (41.5%)	
Independence(6,7)	1 (2.0%)	15 (30.6%)	0 (0.0%)	4 (50.0%)	0 (0.0%)	6 (15.4%)	1 (0.8%)	39 (33.1%)	
Missing	0 (0.0%)	1 (2.0%)	1 (12.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM comprehension									
complete Dependence(1,2)	7 (14.3%)	2 (4.1%)	0 (0.0%)	0 (0.0%)	3 (7.7%)	2 (5.1%)	8 (6.8%)	0 (0.0%)	0.613
Modified Dependence(3-5)	37 (75.5%)	26 (53.1%)	7 (87.5%)	6 (75.0%)	31 (79.5%)	26 (66.7%)	89 (75.4%)	42 (35.6%)	
Independence(6,7)	5 (10.2%)	20 (40.8%)	1 (12.5%)	2 (25.0%)	5 (12.8%)	11 (28.2%)	20 (16.9%)	73 (61.9%)	
Missing	0 (0.0%)	1 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.8%)	3 (2.5%)	
FIM social interaction									
complete Dependence(1,2)	4 (8.2%)	4 (8.2%)	0 (0.0%)	0 (0.0%)	7 (17.9%)	3 (7.7%)	8 (6.8%)	0 (0.0%)	* 0.022
Modified Dependence(3-5)	28 (57.1%)	23 (46.9%)	7 (87.5%)	4 (50.0%)	29 (74.4%)	27 (69.2%)	86 (72.9%)	36 (30.5%)	
Independence(6,7)	17 (34.7%)	22 (44.9%)	1 (12.5%)	4 (50.0%)	3 (7.7%)	9 (23.1%)	23 (19.5%)	79 (66.9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.8%)	3 (2.5%)	
FIM problem solving									
complete Dependence(1,2)	21 (42.9%)	19 (38.8%)	3 (37.5%)	1 (12.5%)	11 (28.2%)	10 (25.6%)	29 (24.6%)	11 (9.3%)	0.356
Modified Dependence(3-5)	27 (55.1%)	19 (38.8%)	5 (62.5%)	7 (87.5%)	28 (71.8%)	27 (69.2%)	86 (72.9%)	68 (57.6%)	
Independence(6,7)	1 (2.0%)	11 (22.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (5.1%)	2 (1.7%)	36 (30.5%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.8%)	3 (2.5%)	

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class4 (N=222)								p-value
	Usual care N=43		Self exercise N=19		Hospital-staff training N=6		Both N=154		
Age	68.3 (12.2)		67.0 (10.2)		70.8 (11.1)		63.7 (11.8)		0.069
Length of stay, days	110.3 (46.3)		102.4 (37.9)		91.8 (33.0)		101.0 (40.4)		0.545
Intervention by PT, OT and ST(units/day)	5.0 (1.6)		5.6 (1.8)		5.0 (2.4)		4.4 (2.0)		0.024
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	49.3 (14.1)	74.5 (14.1)	61.3 (10.3)	79.8 (7.5)	38.3 (12.0)	59.5 (23.8)	48.8 (15.4)	76.7 (10.9)	* 0.002
Cognitive-FIM(admission)	31.7 (3.3)	32.7 (2.2)	31.3 (2.8)	32.4 (2.9)	29.7 (2.9)	29.3 (4.6)	31.7 (2.6)	33.3 (2.3)	0.333
FIM(total)(admission)	80.5 (15.2)	107.2 (15.1)	93.3 (11.5)	112.4 (9.5)	68.0 (12.3)	88.8 (27.9)	80.1 (16.1)	109.8 (12.1)	* 0.001
Category variable, N(%)									
Sex male	13 (30.2%)		6 (31.6%)		3 (50.0%)		67 (43.5%)		0.347
Age-group									
≥54	4 (9.3%)		1 (5.3%)		1 (16.7%)		29 (18.8%)		0.066
55-64	10 (23.3%)		7 (36.8%)		1 (16.7%)		59 (38.3%)		
65-74	12 (27.9%)		7 (36.8%)		1 (16.7%)		30 (19.5%)		
75-84	14 (32.6%)		4 (21.1%)		3 (50.0%)		35 (22.7%)		
≥85	3 (7.0%)		0 (0.0%)		0 (0.0%)		1 (0.6%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Major Stroke Types									
cerebral infarction	26 (60.5%)		11 (57.9%)		4 (66.7%)		89 (57.8%)		0.791
cerebral hemorrhage	16 (37.2%)		6 (31.6%)		2 (33.3%)		58 (37.7%)		
subarachnoid hemorrhage	1 (2.3%)		2 (10.5%)		0 (0.0%)		3 (1.9%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		4 (2.5%)		
Body side with post-stroke paralysis									
right	9 (20.9%)		5 (26.3%)		1 (16.7%)		59 (38.3%)		0.165
left	28 (65.1%)		10 (52.6%)		5 (83.3%)		67 (43.5%)		
both	1 (2.3%)		1 (5.3%)		0 (0.0%)		10 (6.5%)		
nothing	5 (11.6%)		2 (10.5%)		0 (0.0%)		7 (4.5%)		
Missing	0 (0.0%)		1 (5.3%)		0 (0.0%)		11 (7.1%)		
Conducting conferences									
peliodic	32 (74.4%)		15 (78.9%)		1 (16.7%)		58 (37.7%)		* <0.001
peliodic and as needed	10 (23.3%)		4 (21.1%)		5 (83.3%)		93 (60.4%)		
Missing	1 (2.3%)		0 (0.0%)		0 (0.0%)		3 (1.9%)		
Orthotic prescriptions									
Yes	17 (39.5%)		5 (26.3%)		3 (50.0%)		40 (26.0%)		0.391
No	26 (60.5%)		14 (73.7%)		2 (33.3%)		49 (31.8%)		
Missing	0 (0.0%)		0 (0.0%)		1 (16.7%)		65 (42.2%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	5 (11.6%)	2 (4.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (5.8%)	0 (0.0%)	0.085
Modified Dependence(3-5)	9 (20.9%)	3 (7.0%)	1 (5.3%)	0 (0.0%)	3 (50.0%)	2 (33.3%)	43 (27.9%)	9 (5.8%)	
Independence(6,7)	29 (67.4%)	38 (88.4%)	18 (94.7%)	19 (100.0%)	3 (50.0%)	4 (66.7%)	102 (66.2%)	145 (94.2%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM toileting									
complete Dependence(1,2)	13 (30.2%)	2 (4.7%)	2 (10.5%)	0 (0.0%)	3 (50.0%)	1 (16.7%)	50 (32.5%)	5 (3.2%)	0.428
Modified Dependence(3-5)	27 (62.8%)	6 (14.0%)	14 (73.7%)	2 (10.5%)	3 (50.0%)	3 (50.0%)	89 (57.8%)	9 (5.8%)	
Independence(6,7)	3 (7.0%)	35 (81.4%)	3 (15.8%)	17 (89.5%)	0 (0.0%)	2 (33.3%)	15 (9.7%)	140 (90.9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM transfer(toilet)									
complete Dependence(1,2)	13 (30.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	1 (16.7%)	25 (16.2%)	2 (1.3%)	0.065
Modified Dependence(3-5)	28 (65.1%)	8 (18.6%)	19 (100.0%)	2 (10.5%)	5 (83.3%)	3 (50.0%)	117 (76.0%)	11 (7.1%)	
Independence(6,7)	2 (4.7%)	35 (81.4%)	0 (0.0%)	17 (89.5%)	0 (0.0%)	2 (33.3%)	12 (7.8%)	141 (91.6%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	26 (60.5%)	2 (4.7%)	2 (10.5%)	0 (0.0%)	5 (83.3%)	2 (33.3%)	102 (66.2%)	37 (24.0%)	* <0.001
Modified Dependence(3-5)	15 (34.9%)	10 (23.3%)	14 (73.7%)	5 (26.3%)	1 (16.7%)	3 (50.0%)	51 (33.1%)	31 (20.1%)	
Independence(6,7)	2 (4.7%)	31 (72.1%)	3 (15.8%)	14 (73.7%)	0 (0.0%)	1 (16.7%)	1 (0.6%)	86 (55.8%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM comprehension									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.334
Modified Dependence(3-5)	2 (4.7%)	1 (2.3%)	2 (10.5%)	2 (10.5%)	0 (0.0%)	1 (16.7%)	4 (2.6%)	2 (1.3%)	
Independence(6,7)	41 (95.3%)	42 (97.7%)	17 (89.5%)	17 (89.5%)	6 (100.0%)	5 (83.3%)	149 (96.8%)	151 (98.1%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	1 (0.6%)	
FIM social interaction									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	0 (0.0%)	0.901
Modified Dependence(3-5)	2 (4.7%)	3 (7.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	3 (1.9%)	2 (1.3%)	
Independence(6,7)	41 (95.3%)	40 (93.0%)	19 (100.0%)	19 (100.0%)	6 (100.0%)	5 (83.3%)	149 (96.8%)	151 (98.1%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	1 (0.6%)	
FIM problem solving									
complete Dependence(1,2)	0 (0.0%)	0 (0.0%)	1 (5.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (2.6%)	0 (0.0%)	0.070
Modified Dependence(3-5)	7 (16.3%)	8 (18.6%)	6 (31.6%)	6 (31.6%)	4 (66.7%)	5 (83.3%)	30 (19.5%)	21 (13.6%)	
Independence(6,7)	36 (83.7%)	35 (81.4%)	12 (63.2%)	13 (68.4%)	2 (33.3%)	1 (16.7%)	119 (77.3%)	132 (85.7%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	1 (0.6%)	

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class5 (N=117)								p-value
	Usual care N=43		Self exercise N=2		Hospital-staff training N=33		Both N=39		
Age	73.9 (11.2)		72.5 (10.6)		69.5 (7.4)		67.6 (13.0)		0.073
Length of stay, days	117.4 (44.2)		128.0 (31.1)		120.6 (40.7)		130.8 (32.3)		0.469
Intervention by PT, OT and ST(units/day)	4.6 (1.8)		3.2 (3.6)		4.0 (1.5)		5.7 (1.7)		* 0.001
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	15.4 (3.4)	36.0 (23.1)	18.5 (2.1)	55.0 (43.8)	15.9 (4.9)	35.8 (18.6)	17.7 (5.3)	41.4 (22.1)	0.116
Cognitive-FIM(admission)	9.0 (4.0)	14.6 (8.2)	7.5 (3.5)	23.0 (12.7)	7.6 (3.0)	15.3 (6.6)	9.0 (2.6)	16.9 (8.0)	0.227
FIM(total)(admission)	24.4 (5.9)	50.4 (29.1)	26.0 (5.7)	78.0 (56.6)	23.5 (7.4)	51.1 (24.1)	26.6 (6.4)	57.7 (27.7)	0.231
Category variable, N(%)									
Sex male	20 (46.5%)		2 (100.0%)		9 (27.3%)		21 (53.8%)		* 0.048
Age-group									
≥54	3 (7.0%)		0 (0.0%)		0 (0.0%)		5 (12.8%)		0.116
55-64	4 (9.3%)		0 (0.0%)		10 (30.3%)		7 (17.9%)		
65-74	12 (27.9%)		1 (50.0%)		11 (33.3%)		13 (33.3%)		
75-84	18 (41.9%)		1 (50.0%)		12 (36.4%)		12 (30.8%)		
≥85	6 (14.0%)		0 (0.0%)		0 (0.0%)		1 (2.6%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		1 (2.6%)		
Major Stroke Types									
cerebral infarction	29 (67.4%)		0 (0.0%)		17 (51.5%)		21 (53.8%)		0.175
cerebral hemorrhage	10 (23.3%)		1 (50.0%)		12 (36.4%)		16 (41.0%)		
subarachnoid hemorrhage	4 (9.3%)		1 (50.0%)		4 (12.1%)		2 (5.1%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Body side with post-stroke paralysis									
right	24 (55.8%)		2 (100.0%)		13 (39.4%)		26 (66.7%)		0.174
left	17 (39.5%)		0 (0.0%)		15 (45.5%)		11 (28.2%)		
both	2 (4.7%)		0 (0.0%)		3 (9.1%)		0 (0.0%)		
nothing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Missing	0 (0.0%)		0 (0.0%)		2 (6.1%)		2 (5.1%)		
Conducting conferences									
periodic	31 (72.1%)		1 (50.0%)		8 (24.2%)		25 (64.1%)		* <0.001
periodic and as needed	12 (27.9%)		1 (50.0%)		24 (72.7%)		13 (33.3%)		
Missing	0 (0.0%)		0 (0.0%)		1 (3.0%)		1 (2.6%)		
Orthotic prescriptions									
Yes	10 (23.3%)		0 (0.0%)		6 (18.2%)		12 (30.8%)		0.299
No	33 (76.7%)		2 (100.0%)		8 (24.2%)		20 (51.3%)		
Missing	0 (0.0%)		0 (0.0%)		19 (57.6%)		7 (17.9%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	34 (79.1%)	10 (23.3%)	1 (50.0%)	0 (0.0%)	23 (69.7%)	9 (27.3%)	24 (61.5%)	10 (25.6%)	0.334
Modified Dependence(3-5)	9 (20.9%)	17 (39.5%)	1 (50.0%)	1 (50.0%)	10 (30.3%)	16 (48.5%)	15 (38.5%)	21 (53.8%)	
Independence(6,7)	0 (0.0%)	16 (37.2%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	8 (24.2%)	0 (0.0%)	8 (20.5%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM toileting									
complete Dependence(1,2)	43 (100.0%)	27 (62.8%)	2 (100.0%)	1 (50.0%)	33 (100.0%)	18 (54.5%)	39 (100.0%)	21 (53.8%)	-
Modified Dependence(3-5)	0 (0.0%)	10 (23.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (33.3%)	0 (0.0%)	11 (28.2%)	
Independence(6,7)	0 (0.0%)	6 (14.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	4 (12.1%)	0 (0.0%)	7 (17.9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM transfer(toilet)									
complete Dependence(1,2)	43 (100.0%)	19 (44.2%)	2 (100.0%)	1 (50.0%)	33 (100.0%)	13 (39.4%)	38 (97.4%)	14 (35.9%)	-
Modified Dependence(3-5)	0 (0.0%)	17 (39.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	16 (48.5%)	0 (0.0%)	16 (41.0%)	
Independence(6,7)	0 (0.0%)	7 (16.3%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	4 (12.1%)	0 (0.0%)	9 (23.1%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)	0 (0.0%)	
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	43 (100.0%)	23 (53.5%)	2 (100.0%)	1 (50.0%)	33 (100.0%)	13 (39.4%)	36 (92.3%)	20 (51.3%)	0.547
Modified Dependence(3-5)	0 (0.0%)	11 (25.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	16 (48.5%)	1 (2.6%)	11 (28.2%)	
Independence(6,7)	0 (0.0%)	9 (20.9%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	4 (12.1%)	0 (0.0%)	7 (17.9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (5.1%)	1 (2.6%)	
FIM comprehension									
complete Dependence(1,2)	35 (81.4%)	21 (48.8%)	2 (100.0%)	1 (50.0%)	25 (75.8%)	8 (24.2%)	29 (74.4%)	8 (20.5%)	0.796
Modified Dependence(3-5)	7 (16.3%)	17 (39.5%)	0 (0.0%)	0 (0.0%)	8 (24.2%)	22 (66.7%)	9 (23.1%)	20 (51.3%)	
Independence(6,7)	1 (2.3%)	5 (11.6%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	3 (9.1%)	0 (0.0%)	10 (25.6%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)	1 (2.6%)	
FIM social interaction									
complete Dependence(1,2)	38 (88.4%)	20 (46.5%)	1 (50.0%)	0 (0.0%)	30 (90.9%)	13 (39.4%)	33 (84.6%)	15 (38.5%)	0.306
Modified Dependence(3-5)	2 (4.7%)	13 (30.2%)	1 (50.0%)	1 (50.0%)	2 (6.1%)	17 (51.5%)	4 (10.3%)	15 (38.5%)	
Independence(6,7)	3 (7.0%)	10 (23.3%)	0 (0.0%)	1 (50.0%)	1 (3.0%)	3 (9.1%)	1 (2.6%)	8 (20.5%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)	1 (2.6%)	
FIM problem solving									
complete Dependence(1,2)	43 (100.0%)	31 (72.1%)	2 (100.0%)	1 (50.0%)	33 (100.0%)	23 (69.7%)	38 (97.4%)	22 (56.4%)	-
Modified Dependence(3-5)	0 (0.0%)	9 (20.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (27.3%)	0 (0.0%)	12 (30.8%)	
Independence(6,7)	0 (0.0%)	3 (7.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (3.0%)	0 (0.0%)	4 (10.3%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)	1 (2.6%)	

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class6 (N=98)								p-value
	Usual care N=13		Self exercise N=12		Hospital-staff training N=10		Both N=63		
Age	66.3 (12.1)		56.5 (14.4)		63.8 (22.4)		63.8 (13.6)		0.358
Length of stay, days	85.2 (36.5)		82.3 (41.0)		84.5 (37.1)		81.3 (36.9)		0.985
Intervention by PT, OT and ST(units/day)	5.2 (1.3)		5.9 (1.4)		3.4 (1.6)		4.9 (1.8)		* 0.007
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	77.5 (11.2)	84.5 (5.6)	78.2 (9.4)	86.7 (5.3)	74.3 (7.8)	84.3 (3.7)	72.4 (9.7)	82.5 (6.7)	0.133
Cognitive-FIM(admission)	20.7 (4.3)	22.8 (4.2)	22.0 (5.1)	27.4 (4.6)	20.2 (6.1)	25.2 (5.5)	22.2 (5.3)	27.5 (5.1)	0.588
FIM(total)(admission)	98.2 (10.1)	107.2 (7.4)	100.2 (10.5)	114.1 (7.4)	94.5 (11.2)	109.5 (7.8)	94.5 (11.0)	109.9 (9.8)	0.296
Category variable, N(%)									
Sex male	5 (38%)		3 (25%)		4 (40%)		22 (35%)		0.872
Age-group									
≥54	1 (8%)		4 (33%)		2 (20%)		13 (21%)		0.466
55-64	4 (31%)		4 (33%)		2 (20%)		18 (29%)		
65-74	4 (31%)		4 (33%)		1 (10%)		14 (22%)		
75-84	4 (31%)		0 (0%)		4 (40%)		17 (27%)		
≥85	0 (0.0%)		0 (0.0%)		1 (10%)		1 (2%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Major Stroke Types									
cerebral infarction	7 (54%)		2 (17%)		5 (50%)		37 (59%)		0.066
cerebral hemorrhage	2 (15%)		6 (50%)		3 (30%)		19 (30%)		
subarachnoid hemorrhage	3 (23%)		4 (33%)		2 (20%)		7 (11%)		
Missing	1 (8%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Body side with post-stroke paralysis									
right	6 (46%)		7 (58%)		4 (40%)		38 (60%)		0.389
left	3 (23%)		3 (25%)		1 (10%)		8 (13%)		
both	1 (8%)		0 (0.0%)		0 (0.0%)		1 (2%)		
nothing	2 (15%)		2 (17%)		5 (50%)		11 (17%)		
Missing	1 (8%)		0 (0.0%)		0 (0.0%)		5 (8%)		
Conducting conferences									
periodic	10 (77%)		5 (42%)		5 (50%)		41 (65%)		0.448
periodic and as needed	3 (23%)		5 (42%)		5 (50%)		22 (35%)		
Missing	0 (0.0%)		2 (17%)		0 (0.0%)		0 (0.0%)		
Orthotic prescriptions									
Yes	0 (0%)		1 (8%)		0 (0.0%)		4 (6%)		0.613
No	13 (100%)		11 (92%)		7 (70%)		43 (68%)		
Missing	0 (0.0%)		0 (0.0%)		3 (30%)		16 (25%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	1 (8%)		0 (0.0%)		0 (0.0%)		1 (2%)		0.336
Modified Dependence(3-5)	0 (0.0%)		1 (8%)		0 (0%)		10 (16%)		
Independence(6,7)	12 (92%)		11 (92%)		10 (100%)		52 (83%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM toileting									
complete Dependence(1,2)	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		0.354
Modified Dependence(3-5)	2 (15%)		1 (8%)		1 (10%)		2 (3%)		
Independence(6,7)	11 (85%)		11 (92%)		9 (90%)		61 (97%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM transfer(toilet)									
complete Dependence(1,2)	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		0.065
Modified Dependence(3-5)	0 (0%)		1 (8%)		0 (0.0%)		0 (0.0%)		
Independence(6,7)	13 (100%)		11 (92%)		10 (100%)		63 (100%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	0 (0.0%)		1 (8%)		3 (30%)		16 (25%)		0.362
Modified Dependence(3-5)	3 (23%)		4 (33%)		2 (20%)		13 (21%)		
Independence(6,7)	10 (77%)		7 (58%)		5 (50%)		34 (54%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM comprehension									
complete Dependence(1,2)	2 (15%)		3 (25%)		3 (30%)		6 (10%)		0.313
Modified Dependence(3-5)	9 (69%)		6 (50%)		7 (70%)		41 (65%)		
Independence(6,7)	2 (15%)		3 (25%)		0 (0.0%)		16 (25%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM social interaction									
complete Dependence(1,2)	1 (8%)		0 (0.0%)		2 (20%)		5 (8%)		0.699
Modified Dependence(3-5)	9 (69%)		10 (83%)		6 (60%)		49 (78%)		
Independence(6,7)	3 (23%)		2 (17%)		2 (20%)		9 (14%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
FIM problem solving									
complete Dependence(1,2)	2 (15%)		0 (0.0%)		3 (30%)		10 (16%)		0.278
Modified Dependence(3-5)	11 (85%)		12 (100%)		7 (70%)		53 (84%)		
Independence(6,7)	0 (0.0%)		6 (50%)		0 (0.0%)		0 (0.0%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist

Continuous variable, Mean(SD)	Class7 (N=82)								p-value
	Usual care N=28		Self exercise N=4		Hospital-staff training N=15		Both N=35		
Age	71.7 (12.2)		73.0 (7.0)		71.7 (11.5)		70.9 (10.5)		0.981
Length of stay, days	113.1 (45.3)		109.0 (29.3)		97.4 (28.2)		101.4 (39.9)		0.565
Intervention by PT, OT and ST(units/day)	5.2 (2.0)		5.8 (1.8)		4.0 (1.5)		4.9 (2.0)		0.165
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
Motor-FIM(admission)	44.6 (12.5)	64.3 (18.7)	49.2 (18.1)	73.8 (5.1)	39.3 (16.6)	63.5 (16.8)	40.2 (11.3)	65.8 (17.2)	0.314
Cognitive-FIM(admission)	12.2 (3.5)	17.8 (7.0)	11.5 (2.5)	18.0 (9.4)	12.0 (3.8)	19.0 (4.4)	13.0 (4.0)	20.4 (8.0)	0.740
FIM(total)(admission)	56.9 (13.9)	82.1 (23.3)	60.8 (16.1)	91.8 (6.2)	51.3 (19.5)	82.5 (18.9)	52.6 (13.3)	85.2 (23.6)	0.455
Category variable, N(%)									
Sex male	10 (36%)		0 (0.0%)		3 (20%)		11 (31%)		0.404
Age-group									
≥54	3 (11%)		0 (0.0%)		2 (13%)		1 (3%)		0.891
55-64	2 (7%)		0 (0.0%)		1 (7%)		4 (11%)		
65-74	9 (32%)		2 (50%)		4 (27%)		17 (49%)		
75-84	13 (46%)		2 (50%)		7 (47%)		12 (34%)		
≥85	1 (4%)		0 (0%)		1 (7%)		1 (3%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Major Stroke Types									
cerebral infarction	16 (57%)		4 (100%)		10 (67%)		21 (60%)		0.471
cerebral hemorrhage	11 (39%)		0 (0.0%)		3 (20%)		10 (29%)		
subarachnoid hemorrhage	1 (4%)		0 (0.0%)		2 (13%)		4 (11%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Body side with post-stroke paralysis									
right	22 (79%)		3 (75%)		8 (53%)		21 (60%)		0.340
left	4 (14%)		1 (25%)		3 (20%)		5 (14%)		
both	0 (0.0%)		0 (0.0%)		4 (27%)		4 (11%)		
nothing	2 (7%)		0 (0.0%)		0 (0.0%)		2 (6%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		3 (9%)		
Conducting conferences									
periodic	19 (68%)		4 (100%)		3 (20%)		22 (63%)		* 0.004
periodic and as needed	9 (32%)		0 (0.0%)		12 (80%)		13 (37%)		
Missing	0 (0.0%)		0 (0.0%)		0 (0.0%)		0 (0.0%)		
Orthotic prescriptions									
Yes	9 (32%)		1 (25%)		2 (13%)		8 (23%)		0.990
No	19 (68%)		3 (75%)		5 (33%)		19 (54%)		
Missing	0 (0.0%)		0 (0.0%)		8 (53%)		8 (23%)		
	admission	discharge	admission	discharge	admission	discharge	admission	discharge	
FIM eating									
complete Dependence(1,2)	7 (25%)	0 (0%)	0 (0.0%)	0 (0.0%)	1 (7%)	1 (7%)	5 (14%)	2 (6%)	0.463
Modified Dependence(3-5)	14 (50%)	7 (25%)	2 (50%)	0 (0.0%)	10 (67%)	6 (40%)	23 (66%)	12 (34%)	
Independence(6,7)	7 (25%)	21 (75%)	2 (50%)	4 (100%)	4 (27%)	8 (53%)	6 (17%)	20 (57%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3%)	1 (3%)	
FIM toileting									
complete Dependence(1,2)	7 (25%)	2 (7%)	0 (0.0%)	0 (0.0%)	7 (47%)	1 (7%)	12 (34%)	2 (6%)	0.110
Modified Dependence(3-5)	20 (71%)	13 (46%)	3 (75%)	1 (25%)	7 (47%)	5 (33%)	22 (63%)	11 (31%)	
Independence(6,7)	1 (4%)	13 (46%)	1 (25%)	3 (75%)	1 (7%)	9 (60%)	0 (0%)	21 (60%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3%)	1 (3%)	
FIM transfer(toilet)									
complete Dependence(1,2)	27 (96%)	0 (0.0%)	4 (100%)	0 (0.0%)	15 (100%)	0 (0.0%)	31 (89%)	0 (0.0%)	0.350
Modified Dependence(3-5)	1 (4%)	15 (54%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (40%)	4 (11%)	11 (31%)	
Independence(6,7)	0 (0.0%)	13 (46%)	0 (0.0%)	4 (100%)	0 (0.0%)	9 (60%)	0 (0.0%)	24 (69%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM locomotion(walk/wheelchair)									
complete Dependence(1,2)	11 (39%)	4 (14%)	1 (25%)	0 (0.0%)	9 (60%)	5 (33%)	20 (57%)	5 (14%)	0.551
Modified Dependence(3-5)	15 (54%)	12 (43%)	3 (75%)	0 (0.0%)	6 (40%)	6 (40%)	14 (40%)	18 (51%)	
Independence(6,7)	2 (7%)	12 (43%)	0 (0.0%)	4 (100%)	0 (0.0%)	4 (27%)	1 (3%)	12 (34%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM comprehension									
complete Dependence(1,2)	19 (68%)	10 (36%)	3 (75%)	1 (25%)	6 (40%)	1 (7%)	9 (26%)	8 (23%)	* 0.035
Modified Dependence(3-5)	9 (32%)	14 (50%)	1 (25%)	2 (50%)	9 (60%)	14 (93%)	25 (71%)	16 (46%)	
Independence(6,7)	0 (0.0%)	4 (14%)	0 (0.0%)	1 (25%)	0 (0.0%)	0 (0.0%)	1 (3%)	11 (31%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM social interaction									
complete Dependence(1,2)	19 (68%)	11 (39%)	4 (100%)	2 (50%)	11 (73%)	1 (7%)	23 (66%)	7 (20%)	0.851
Modified Dependence(3-5)	5 (18%)	10 (36%)	0 (0.0%)	1 (25%)	3 (20%)	10 (67%)	8 (23%)	17 (49%)	
Independence(6,7)	4 (14%)	7 (25%)	0 (0.0%)	1 (25%)	1 (7%)	4 (27%)	4 (11%)	11 (31%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
FIM problem solving									
complete Dependence(1,2)	26 (93%)	14 (50%)	3 (75%)	1 (25%)	15 (100%)	6 (40%)	33 (94%)	10 (29%)	0.386
Modified Dependence(3-5)	1 (4%)	12 (43%)	1 (25%)	2 (50%)	0 (0.0%)	9 (60%)	2 (6%)	22 (63%)	
Independence(6,7)	1 (4%)	2 (7%)	0 (0.0%)	1 (25%)	0 (0.0%)	0 (0%)	0 (0.0%)	3 (9%)	
Missing	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

Abbreviations: FIM; Functional Independence Measure (range, 18–126, a higher score indicated higher independence), OT; Occupational therapist, PT; Physical therapist, ST; Speech Language therapist