

**Appendix S1.** Functional Independence Measure (FIM™) baseline analysis including threshold disordering and local dependency.

Sample	n/CI	Items with threshold disordering												Local dependency item related items												AE		P		Q		R			
		A		B		C		D		E		F		G		H		I		J		K		L		M		N		AE		P		Q	
MSK_t1	246/4	L, M, N	B, D	A, D	D, E, F	A, B, C,	C, D, F,	I, J	C, D, E,	C, D, F,	E, F, G, H	E, F, J, K	E, F, I	I	M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q												
MSK_t2	230/4	F, G, L, M, N, P	B	A, D	D, E, F, H	B, C, E, F	C, D, E,	F, I, J	C, D, E,	C, D, E,	E, F, G, H	E, F, J,	E, F, I,	I, J, L	I, J, K	K, L	Q, R	N, P	N, Q	Q, R	Q, R	N, Q	P, Q												
MSK_all	476/8	L, M, N	B, D	A, D	B, D, E, F	A, B, C, F	C, D, F,	I, J	C, D, E,	C, D, E,	G	E, F, J,	E, F, I,	I, J	I, J, M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q												
NEUR_t1	228/4	A, E, F, G, H,	B	A, C, D, E, I	B, D, E, F, I, J, K	B, C, E, F, I, J, K	B, C, D, F, I, J, K	C, D, E, G, I, J, K	C, D, E,	C, D, E,	F	G	B, C, D,	C, D, E,	C, E, F,	I, J, M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q							
NEUR_t2	242/4	A, E, F, G, H, J,	B, C, D	A, C, D, F	A, B, D, E, F, I, J, K	A, B, C, E, F, I, J, K	C, D, F, E, F, I, J, K	B, C, D, E, I, J, K	B, C, D, E, I, J, K	H	G	C, D, E,	C, D, E,	C, D, E,	J, K, M	I, J, K, L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q								
NEUR_all	470/8	A, E, F, G, H,	B	A, C, D, E, F	B, D, E, F, I, J, K	B, C, E, F, I, J, K	B, C, D, F, I, J, K	C, D, E, G, I, J, K	B, C, D, E,	B, C, D, E,	H	G	C, D, E,	C, D, E,	C, D, E,	I, J, M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q							
tL_all	474/8	F, G, H, L, M	B	A, C, D	B, D, E,	B, C, E,	F, C, D, F	C, D, E,	C, D, E,	H	G	C, D, E,	C, D, E,	C, D, E,	I, J	I, J, M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q							
t2_all	472/8	F, G, H, K, L, M	B, D	A, C, D	B, D, E,	A, B, C,	C, F, I, E, F, I, J, K	C, E, I, J, K	C, E, I, J, K	H	G	F, J, K, L	F, I, K, L	F, I, K, L	J, L	M	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q								
FIM_all	946/10	F, G, H, L, M	B	A, C, D	B, D, E,	B, C, E,	F, C, D, F,	C, D, E,	C, D, E,	H	G	C, D, E,	C, D, E,	C, D, E,	I, J	I, J, M	L	O, P	N, P	N, Q	Q, R	Q, R	N, Q	P, Q	N, Q	P, Q	N, Q	P, Q							

MSK: musculoskeletal rehabilitation; NEUR: neurological rehabilitation; t1: admission, t2: discharge, all: combination of time-points or/and rehabilitation-groups; n: sample size; CI: class intervals.