

Responsiviteit van de **USER** en de **Barthel index** in medisch specialistische en geriatrische CVA-revalidatie

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Introduction: The Barthel Index (BI) is a widely used assessment of physical functioning in Dutch clinical stroke rehabilitation. However, since the introduction of the Utrecht Scale for Evaluation of Rehabilitation (USER), the USER is used more often instead, both in medical specialist rehabilitation (MSR) and in geriatric rehabilitation (GR). We compared responsiveness of the Barthel Index, the USER physical functioning (USER-pf) and the USER-derived BI (d-BI) in a combined cohort of MSR and GR patients.

Methods: In this prospective patient record study, 216 stroke patients (mean age 65 ± 12y; 60% male) admitted at the MSR/GR stepped care stroke unit of a rehabilitation facility (Hoensbroek, Netherlands) in the time period April 2018 - July 2019 were included. USER-pf and BI measurements were performed at admission and discharge in all patients. The Cohens D (CD) and standardized response mean (SRM) were used to establish USER and BI responsiveness.

Results: The USER-pf SRM and CD for the MSR cohort (N=129) were 1,16 and 0,97 compared to 1,11 and 0,98 for BI and 0,89 and 0,82 for d-BI. The USER-pf SRM and CD for the GR cohort (N=87) were 1,29 and 0,97 compared to 1,40 and 1,02 for BI, and 1,11 and 0,90 for d-BI.

	Opname (Gem, SD)		Ontslag (Gem, SD)		Verandering (Gem, SD)		SRM	Cohens D	laagste score	hoogste score	Vloer-effect	Plafond-effect
Totaal (N=216)												
USER Lichamelijk functioneren [zelfverzorging en mobiliteit] (0-70)	43,1	20,1	62,1	12,4	19	15,7	1,21	0,95	0 (0,9%)	70 (9,3%)	-	-
BI (0-20)	13	5,7	18,5	2,9	5,5	4,5	1,22	0,96	0 (0,9%)	20 (13,4%)	-	-
BI berekend obv USER score 'Lichamelijk functioneren' (0-20)	14,4	5,3	18,9	2,6	4,6	4,7	0,98	0,85	0 (1,4%)	20 (26,4%)	-	+
GRZ (N=87)												
USER Lichamelijk functioneren [zelfverzorging en mobiliteit] (0-70)	37,7	20,1	57,2	14,8	19,5	15,1	1,29	0,97	0 (1,1%)	70 (5,7%)	-	-
BI (0-20)	11,4	5,8	17,3	3,8	5,9	4,2	1,40	1,02	0 (1,1%)	20 (3,4%)	-	-
BI berekend obv USER score 'Lichamelijk functioneren' (0-20)	12,9	5,8	18,1	3,5	5,2	4,7	1,11	0,90	0 (1,1%)	20 (17,2%)	-	+
MSR (N=129)												
USER Lichamelijk functioneren [zelfverzorging en mobiliteit] (0-70)	46,7	19,3	65,4	9	18,7	16,1	1,16	0,97	0 (0,8%)	70 (11,6%)	-	-
BI (0-20)	14,1	5,3	19,3	1,9	5,2	4,7	1,11	0,98	0 (0,8%)	20 (20,2%)	-	+
BI berekend obv USER score 'Lichamelijk functioneren' (0-20)	15,3	5,1	19,5	1,6	4,2	4,7	0,89	0,82	0 (1,6%)	20 (32,6%)	-	+

Conclusion: Our findings indicate that the USER-pf is equally responsive compared to the BI in MSR. In GR however, the BI is slightly more responsive in assessing physical functioning than the USER-pf and may be preferred. In both AR and GR, lower responsiveness was observed for d-BI, which therefore should be used with caution.

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