

Quadriplegia Index of Function – Short Form (QIF-SF)

Assessment Overview

Assessment Area

ICF Domain:

Activity

Subcategory:

Self-care

You Will Need

Length:

5-10 minutes, 6 items

Scoring:

Items scored on 5-point scale based on assistance required to complete the task with scores ranging 0 (dependent) to 4 (independent). Maximum score is 24 points.

Training:

None required

Summary

The Quadriplegia Index of Function – Short Form (QIF-SF) is a clinician-administered interview format measure developed to provide a functional assessment for documenting small but clinically significant gains made by SCI quadriplegics throughout in-patient rehabilitation.

Based on the QIF originally developed in 1980, the QIF-SF assesses only 6 ADLs instead of 37 in the original version.

Availability

Worksheet: Can be found [here](#).

Languages: English

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Mean (SD) Scores:

Best motor level complete lesions C6 and above (n=23): 9.9 (6.9)

Best motor level incomplete lesions C6 and above (n=24): 19 (6.1)

(Snoek et al. 2005; n=47; 38 males, 9 females; tetraplegia; mean age (SD): 42 (13) years; mean duration of injury (SD): 11 (9); 44% AIS A, 31% AIS B, 9% AIS C, 16% AIS D)

Best motor level	Total Group (N=95)	
	N	Mean (SD)
C4/C5	33	2.5 (4.4)
C6	25	7.4 (6.5)
C7	19	13.6 (6.7)
C8	7	13.1 (7.0)
T1+	11	21.0 (4.9)

(Marino & Goin 1999; n=95; 85 males, 10 females; tetraplegia; mean age (SD): 32.1 (13.2) years; non-ambulatory @ 6 months)

Measurement Properties

Validity – **Moderate to High**

High correlation with Quadriplegia Index of Function (QIF):

$r = 0.987$ ($p=0.987$)

High correlation with ASIA Upper Extremity Motor Score (UEMS):

$\rho = 0.824$

(Marino & Goin 1999; N=95; 85 males, 10 females; tetraplegia; mean age (SD): 32.1 (13.2); non-ambulatory @ 6 months)

High correlation with Berlin Bimanual Test for Tetraplegia (BeBiTT):

$r = 0.66$ ($p = 0.011$)

(Angerhöfer et al. 2023; n=14; 13 males, 1 female; tetraplegia; mean age (SD): 48.6 (18.5) years)

Moderate correlation with health state related to upper-extremity impairment of subjects:

$r=0.313$ ($p=0.03$)

(Snoek et al. 2005; n=47; 38 males, 9 females; tetraplegia; mean age (SD): 42 (13) years; mean duration of injury (SD): 11 (9); 44% AIS A, 31% AIS B, 9% AIS C, 16% AIS D)

Number of studies reporting validity data: 3

Reliability – **High**

High Internal Consistency:

$\alpha = 0.89$

(Marino & Goin 1999; n=95; 85 males, 10 females; tetraplegia; mean age (SD): 32.1 (13.2) years; non-ambulatory @ 6 months)

Number of studies reporting reliability data: 1

Responsiveness

Floor/Ceiling Effect:

Not established in SCI

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 1

1.43 (Admission to Discharge)

1.13 (Admission to 3 months later)

0.74 (3 months from admission to Discharge)

(Spooren et al., 2006; N=60, 46 male, mean age (range): 38.9 (13.42-64.5); N=42 C3-C6 level of injury, N=18 C7-T1 level of injury)