

Tool for assessing mobility in wheelchair-dependent paraplegics

Assessment Overview

Assessment Area

ICF Domain:

Activity

Subcategory:

Mobility

You Will Need

Length:

Approx. 30-45 min, 6 tasks.

Equipment Needed:

Cones

A 25-meter hallway

A 15-meter ramp

Curbs 2.5 cm and 15 cm high

Training:

Tasks are supervised by a trained physiotherapist

Scoring:

Each task performed is rated 1 (Independent) to 6 (Total Assistance).

Tasks 2 through 6 are scored using the best score out of up to 3 attempts. If a task is not attempted, 'not applicable' is recorded.

Task scores are reported separately.

Summary

This tool is used to quantify the independence level and mobility of individuals with SCI who use a wheelchair. It is a clinician-administered, performance-based assessment. It assesses 6 motor tasks:

1. Moving from lying to sitting;
2. Completing a horizontal transfer;
3. Completing a vertical transfer;
4. Pushing a wheelchair on flat ground;
5. Pushing a wheelchair up/down ramps; and
6. Negotiating curbs in a wheelchair.

The tool was designed specifically for individuals with paraplegia who use a manual wheelchair.

The results of the assessment tool summarize the basic level of wheelchair mobility of patients in a manner that is readily understood by other professionals.

Availability

Use instructions in Summary or from website.

Languages: English

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Median (IQR) scores:

Task 1 - 6 (3.75 ± 6)

Task 2 - 6 (6 ± 6)

Task 3 - 3.5 (1 ± 6)

Task 4 - 5 (4.5 ± 5.25)

Task 5 - 5 (4.25 ± 5.0)

Task 6 - 3.5 (2 ± 5.25)

(Harvey et al. 1998; N=20 inpatients and outpatients; mixed injury types; median (IQR) time post-SCI = 9(2.5-18))

Measurement Properties

Validity

Not established in SCI

Reliability – High

High Inter-rater Reliability:

Cohen's Weighted Kappa= 0.82-0.96.

When the data from the 6 tasks were compared, the 2 therapists' scores were in perfect agreement 82% of the time, within one grade 17% of the time, within two grades 2% of the time, and never differed by three or more grades.

(Harvey et al. 1998; N=20 inpatients and outpatients; mixed injury types; median (IQR) time post-SCI = 9(2.5-18))

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: 0