

# 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 (Total Assistance) to 6 (Independent).

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
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

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

**Language:** 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; mean (SD) age: 45.6 (16.8) years wheelchair dependents with paraplegia)

## 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; mean (SD) age: 45.6 (16.8) years wheelchair dependents with paraplegia)

**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**