

Clinical Outcome Variables Scale (COVS)

Assessment Overview

Assessment Area

ICF Domain:

Activity

Subcategory:

Mobility

Subscales:

General Mobility

Ambulation

You Will Need

Length:

13 items

Scoring:

7-point scale ranging from 1 (fully dependent mobility) to 7 (normal independent mobility). COVS summed total score ranges from 13 to 91. The general mobility subscale ranges from 7-49 and the ambulation subscale ranges from 5-35.

Higher scores = better mobility.

Equipment:

Stopwatch, bed sticks, bed ladders, lifting blocks, transfer boards, leg straps, exercise mat, ramp (1 inch to 12 inch rise), 6 inch platform

Training:

Raters should be trained in the administration of both the COVS and TCOVS.

Summary

The Clinical Outcome Variables Scale (COVS) is a measure of mobility that has been used in people with stroke, traumatic brain injury, amputations, and musculoskeletal injuries in a variety of settings (acute, inpatient/outpatient rehabilitation, and community settings). Items include: rolling, lying to sitting, sitting balance, transfers, ambulation, wheelchair mobility, and arm function.

There are two subscales in the COVS: 1) General Mobility subscale (7 items) and 2) Ambulation subscale (5 items)

Two versions:

- 1) **COVS:** clinician-administered through observation of task performance
- 2) **TCOVS:** Self-report, administered by telephone

Availability

Worksheet: Can be found in the appendix of publication linked [here](#). Full guidelines and scoring software available for purchase [here](#).

Languages: English

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

COVS mean (SD) scores:

Composite score: 55 (20)

Mobility subscale: 39 (13)

Ambulation subscale: 11(9)

TCOVS mean (SD) scores:

Composite score: 54 (18)

Mobility subscale: 37 (12)

Ambulation subscale: 11(9)

(Barker et al. 2007; study 1 n=37, 31 males, traumatic SCI, mixed injury types, mean time since injury (SD): 8 (3.7) months, community living)

Threshold Values:
Not established in SCI

Measurement Properties

Validity – High

The COVS can discriminate across clinically distinct groups (by lesion level, completeness of injury and walking status) during discharge from hospital and admission to a transitional rehabilitation program.

(Campbell & Kendall 2003; n=169; 124 males, 45 females; 36 complete paraplegia, 56 incomplete paraplegia, 25 complete paraplegia, 52 incomplete paraplegia, community rehab)

Number of studies reporting validity data: 1

Reliability – High

High Test-retest Reliability (TCOVS):

ICC = 1.00

High Correlation between COVS and TCOVS:

ICC = 0.98

(Barker et al. 2007; study 1 n=37; 31 males, 6 females; traumatic SCI, 18 tetraplegia, 19 paraplegia; 19 complete injury, 18 incomplete injury; mean time since injury (SD): 8 (3.7) months, community living)

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