

Outcome Measures for the Low Functioning Patient

HOPE ARROWOOD

UNC SPT



Today We'll
Cover

Seated Outcome
Measures

Bed level outcome
measures

Postural Outcomes

Objectives

01

Audience will be able to recall appropriate outcome measures for low functioning patients

02

Audience will understand why functional measures are important for chair/bed bound patients

03

Audience will be able to perform outcome measures correctly and incorporate them into patient care appropriately

04

Audience will learn the purpose of each outcome measure and the population of patient for which they are intended

05

Audience will be able to interpret the results of each outcome measure and how to document results

Seated Outcome Measures

Seated Step Test

Function in Sitting Test

Modified Timed Loaded Standing

Chair Sit and Reach

Sock Test

Arm Curl Test

Pt. sits in standard height armless chair with 6"-18" aerobic step placed in front of them at near full knee extension distance. Metronome at 60 bpm preferred.



Seated Step Test

Take Vitals and measure 75% Max HR

Stage 1: 6"
alternating steps x 3
min

Stage 2: 12"
alternating steps x 3
min

Stage 3: 18"
alternating steps x 3
min

Stage 4: 18"
alternating steps w/
ipsilateral arm raise
to 90* x 3 min

Function in Sitting Test

- Equipment Necessary: Stopwatch and Bed/Armless Chair
- 14 Item test that evaluates sensory, motor, proactive, and reactive balance abilities in sitting
- Scored on a 4-point ordinal scale ranging from requiring complete assistance to independent
- Highest score possible is 56/56
- Recommended and studied for use in stroke (< 3 mo.) and vestibular patients

Function in Sitting Test Instructions

One trial of each item

Verbal directions and demonstration are given as needed by the therapist

Standard position: Seated EOB with half of femur supported, hips and knees at 90

Hands placed in lap unless needed for support

Modified Timed Loaded Standing

Measure of postural and shoulder muscle strength

Pt. sitting with back unsupported, arms extended forward at 90

Pt. holds 2lb weight in each hand and holds position for up to 2 minutes

Therapist can provide cues to keep shoulders elevated to 90, but nothing else

Normative value is 1:15 for patients with a history of spinal fracture

Chair Sit and Reach

- Measures hamstring length and trunk flexion ROM
- Sit and fully extend one leg, reach forward toward toes with both hands stacked keeping back straight
- Measure distance from middle fingertips to toes
- Past the toes is a positive score, not reaching the toes is a negative score
- Contraindicated for osteoporosis patients

Chair Sit and Reach Norms

Age	Average (Men)	Average (Women)
65–69	–3.0 to 3.0	–0.5 to 4.5
70–74	–3.5 to 2.5	–1.0 to 4.0
75–79	–4.0 to 2.0	–1.5 to 3.5
80–84	–5.5 to 1.5	–2.0 to 3.0
85–89	–5.5 to 0.5	–2.5 to 2.5
90–94	–6.5 to –0.5	–4.5 to 1.0

Sock Test

Quick measure of hip and trunk functional mobility

Sitting EOB, with feet off the floor

Lift one leg in sagittal plane reaching with both hands towards toes

Don't let their feet touch the bed when raised

Scoring

Arm Curl Test

- Pt. seated in a chair with room to perform full curl
- Women hold 5 lb. weight, Men hold 8 lb. weight
- Time how many full curls the patient can complete in 30 seconds

Age	M	F
65-69	15-21	12-18
70-74	14-21	12-17
75-79	13-19	11-17
80-84	13-19	10-16
85-89	11-17	10-15
90-94	10-14	8-13



Bed Level Outcome Measures

Grip Strength

Bridge Hold Test

Prone Extensor Test (Superman)

Abdominal Curl Up

Grip Strength Testing

- Dynamometer set in position 2
- 3 trials each hand, alternating sides. Record the best of 3 trials
- Ideally arm unsupported, but can be modified as necessary

Norms for Right-Handed People

Age	M	F
65-69	41.3	22.5
70-74	34.2	22.5
75-79	33	21.6
80-84	30.1	17.3
85-89	25.8	17.1
90-94	18.8	15.2

More Bed Level Outcome Measures

Bridge Hold Test

Postural Outcome Measures

Occiput to Wall



Resources

- Shirley Ryan Ability Lab Website
- UNC Geriatrics Coursework, prof. Neisha Wetzel, DPT
- https://repository.library.northeastern.edu/downloads/neu:m041hg07k?datastream_id=content