Spinal Cord Independence Measure Version III

(SCIM III):

Observation by Performance

Copyright ©2020. Center for Outcomes and Measurement, Jefferson College of Rehabilitation Sciences, Thomas Jefferson University. All rights reserved. Do not modify without permission from the copyright holder. Version 1.0, June 2020

1

Index

Introduction	
General Instructions	4
Glossary of Terms	5
Required Materials	6
Administration Guidelines & Scoring Procedures	7
Self-Care	
Feeding	8
Bathing	10
Dressing	13
Grooming	16
Mobility	
Mobility in Bed and Action to Prevent Pressure Injuries	18
Transfers: Bed-Wheelchair	20
Transfers: Wheelchair-Toilet-Tub	22
Mobility: Indoors, Outdoors, and on Uneven Surfaces	24
Stair Management	28
Transfers: Wheelchair-Car	29
Transfers: Wheelchair-Ground	31

Introduction

The Spinal Cord Independence Measure Version III (SCIM-III) is designed for individuals with SCI and assesses performance in activities of daily living and mobility. It is frequently used in both clinical practice and clinical trial settings.

Because the SCIM-III form is not accompanied by a manual that provides guidelines for standardization in administration and scoring, there is risk that variation in procedures for administration and scoring across trials may limit opportunity for comparison of outcomes or harmonization of data. As a way to improve standardization and scoring of the SCIM-III, the Center for Outcomes and Measurements at Thomas Jefferson University used a Modified Delphi Survey and engaged experts in SCI to develop clear procedural guidelines for administration and scoring the SCIM-III. The iterative Modified Delphi Survey methodology did not alter any SCIM-III item or scoring criteria. Rather it focused entirely on providing clarity and standardized instructions for administering and scoring SCIM-III items, with the goal to provide the field with a resource for when the SCIM-III is used as a performance measure to assess endpoints of clinical trials.

Guidelines were created for 2 subscales: self-care (6 items) and mobility (9 items). A total score out of 60 can be obtained, with self-care scores ranging from 0-20 and mobility scores ranging from 0-40. Participants should perform SCIM-III self-care and mobility items using one's best/maximal performance as long as the participant is deemed safe.

General Instructions

- 1. Testing by observation performance of the SCIM-III items should take approximately 30 45 minutes to perform the self-care section and 30 45 minutes to perform the mobility section.
- 2. The participant should perform each task according to the procedural guidelines for administration. The rater uses the flowsheets to score each observation.
- 3. Unless the purpose of the study is otherwise, participants should perform SCIM-III self-care and mobility items using one's "best/maximal performance", as opposed to "typical/usual performance", as long as the participant is deemed safe. Note that the "best/maximal performance" may differ from a self-selected or preferred mechanism of transfer.
- 4. Consistent with SCIM-III, adaptive devices (AD), specific settings (SS), and durable medical equipment (DME) are allowed and scoring specifications are defined on the flowsheets.
- 5. Standardized equipment on the *Required Materials* list should be used (some materials may need to be purchased). For some SCIM-III items, the participants' personal items are used. If standardized materials cannot be obtained, then the administrator must be sure that the same materials are used for repeated administration within a study.
 - a. A car simulation set up (photos are provided for the *Transfer: Wheelchair-Car* item) is used, not the participant's motor vehicle or a car simulator.
 - Excluding the *wheelchair-car transfer* item, all SCIM-III items are tested in a real setting (i.e., bed, shower). If unable, providing a simulated alternative is permitted but must be the same for repeated administrations.
- The SCIM-Spinal Cord Independence Measure Version III September 14, 2002 score sheet should be utilized to document scores. It can be obtained <u>here</u> by selecting *Instrument Details*. <u>https://www.sralab.org/rehabilitation-measures/spinal-cord-independence-measure</u>

Glossary of Terms

Term	Definition	Example
Durable Medical Equipment (DME)	Equipment that helps someone perform daily activities.	Wheelchair, walker, commode, shower chair, tub bench
Adaptive Devices (AD)	Devices that help someone perform daily activities. These can be off-the shelf or tailor made for the participant. Ideally, it is what the participant typically uses.	U-cuff, long-handled sponge, splint, grab bars, built-up handles
Specific Setting (SS)	Any setting that deviates from the typical way of performing the task, or the only setting a participant can perform an activity in. For example, if the only setting a participant can dress in is a hospital bed, that would be described as a specific setting.	Bed/chair (supine/seated), shower with grab-bars, wheelchair, tub bench, shower chair
Assistance	Any time the participant is provided with physical help from another person to perform either part of or an entire task, which includes contact guard assistance for safety. Supervision is <u>not</u> considered assistance.	Total assist, partial assist, contact guard assistance

Required Materials

- 1. Foam block: 5 x 5 inch square
- 2. Reusable knife and fork
- 3. Sandwich container: 8 oz, 6.4 x 3.7 x 7 inches, non-locking lid



4. Filled water bottle: 16.9oz, screw-top lid



5. Cup: 12oz, plastic

- 6. Washcloth
- 7. Comb
- 8. Face soap and towel
- 9. Toothbrush and toothpaste
- 10. Transfer board
- 11. Tub Bench or shower chair
- 12. Standard Chair with armrests
- 13. Car transfer set up (plinth/raised mat, mat, 3 wedges (2 mats 24"x24"x36", 1 mat 12"x24"x26")
- 14. Rolling walker or any other gait equipment
- 15. Traffic cones, colored tape, or other objects that can be used as visual cues

Participant to bring from home:

- 1. Pullover t-shirt
- 2. Zippered hoodie
- 3. Typically worn long pants
- 4. Typically worn shoes and/or orthotics (as needed)
- 5. Make up and/or shaving tools
- 6. Wheelchair
- 7. Adaptive devices typically used in feeding, bathing, grooming, and dressing tasks

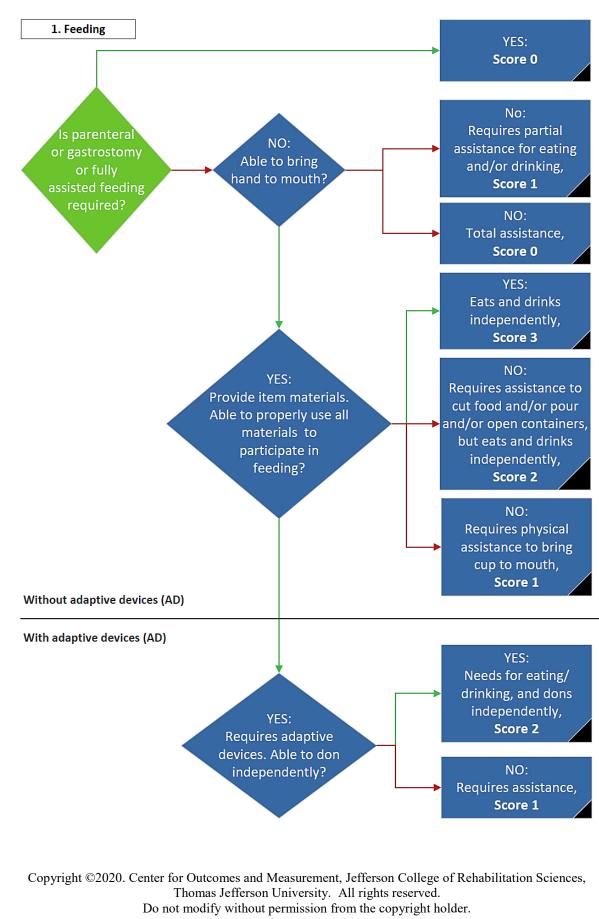
Administration Guidelines & Scoring Procedures

Self-Care

1. Feeding

Required materials: sandwich container, utensils (knife and fork), water bottle, cup, foam

- a. The participant is asked to bring hand to mouth.
- b. If able to bring hand to mouth, participant is handed a sandwich container containing a piece of foam, and a knife and fork. Participant must demonstrate ability to open the container.
- c. The participant is instructed to cut the foam in half using the knife provided. The foam can be cut either inside or outside of the container.
- d. The participant is asked to use the fork to spear the putty and lift it to participant's mouth.
- e. The participant is given a water bottle and cup. Participant may open the water bottle by any means necessary.
- f. The participant is asked to pour water from the bottle into the cup. Participant may stabilize the cup by any means necessary.
- g. The participant is asked to pick up cup with one or both hands and bring to mouth.



Version 1.0, June 2020

2. Bathing

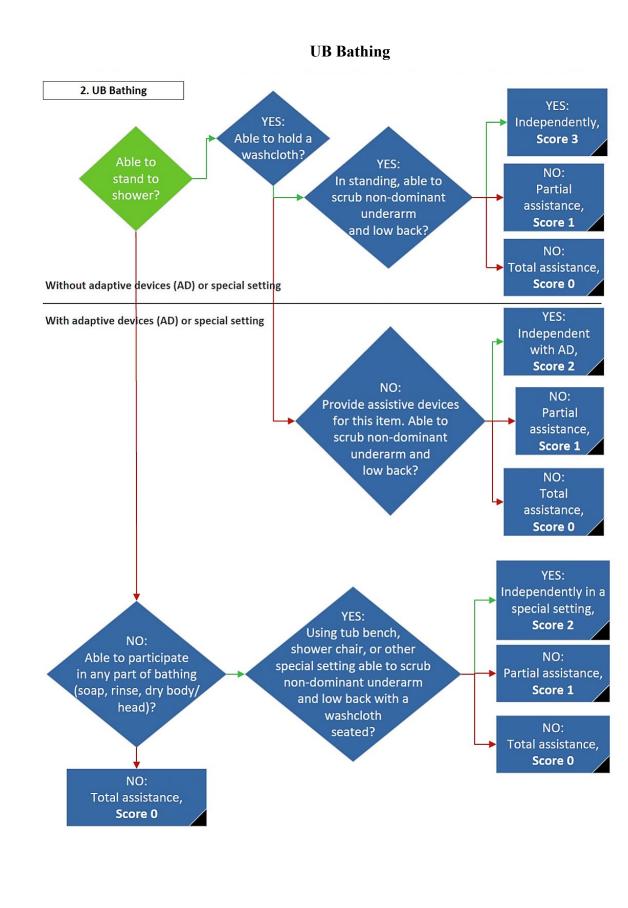
Required materials: shower (a real shower setting is recommended), washcloth. The shower is off during this task (no running water).

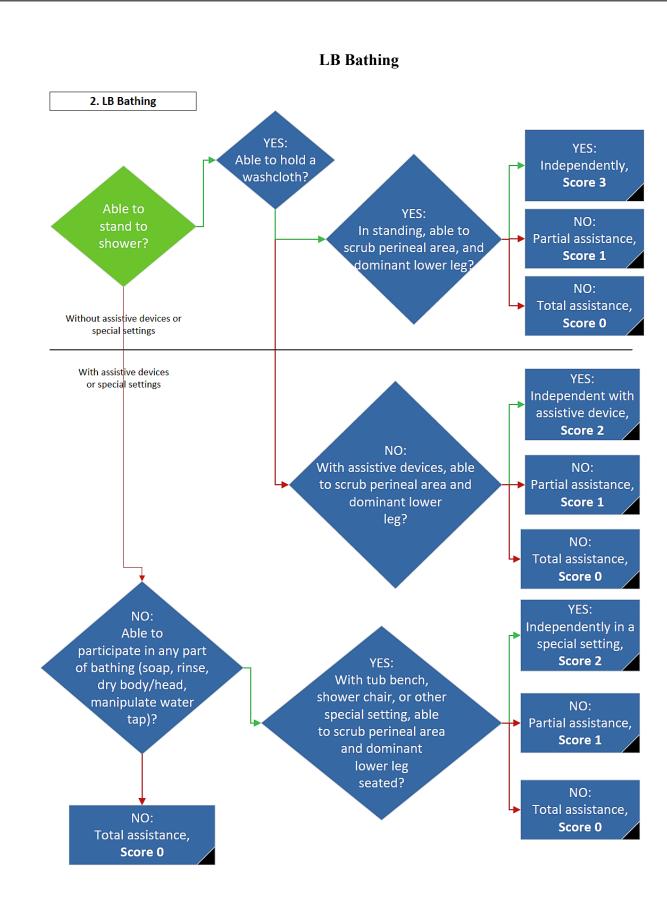
Upper Body Bathing

- a. Once in the shower, the participant is assessed in the participant's preferred position
 - i. If the participant prefers to stand, then the participant performs the bathing tasks in standing.
 - ii. If the participant prefers to sit, then the participant will be provided durable medical equipment as per the flow sheet and perform the tasks seated.
 - iii. Note: transfer in and out of the shower is not assessed on this item.
- b. The participant is asked to hold a washcloth.
- c. The participant must move the wash cloth on skin of scrub the non-dominant underarm (axillary region) and lower back (T8 to sacrum) to assess upper-body bathing.

Lower Body Bathing

- a. After performing upper body bathing tasks, the participant is asked move wash cloth to the perineal area and to the dominant lower leg (distal to the knee, including the foot) to assess lower body bathing.
 - i. If participant performed upper body in standing, lower body is assessed in standing
 - ii. If participant is unable to stand, the participant can use durable medical equipment as per the flowsheet.





3. Dressing

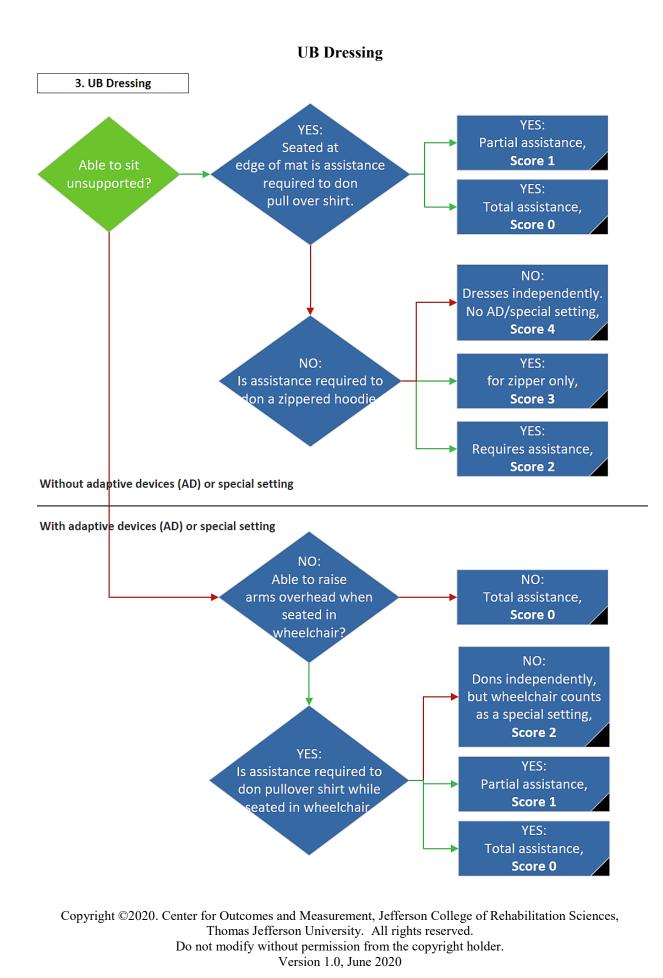
Required materials: mat, pullover shirt, zippered hoodie, pants, shoes, socks, and orthosis (ese) (as needed)

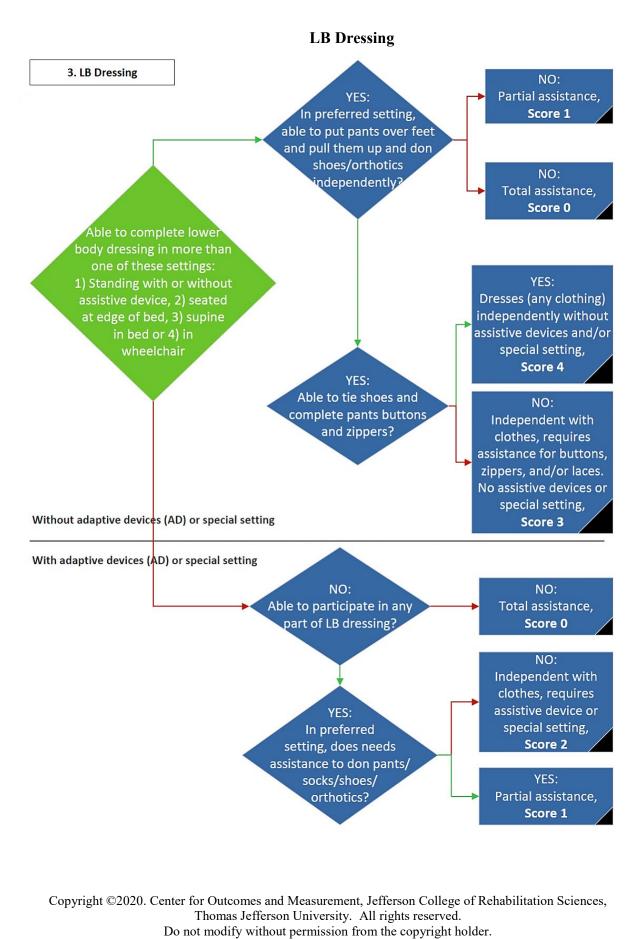
Upper Body Dressing

- a. The participant is asked to sit at the edge of a mat without back or upper extremity support for 1 minute.
 - i. If able to sit unsupported for 1 minute, the participant continues through the tasks (don pullover t-shirt, then don zippered hoodie) seated at the edge of the mat.
 - ii. If participant can only perform upper body dressing in supported seating, then that is considered a specific setting.
- b. If unable to sit unsupported, the participant moves back to the wheelchair. Participant is asked to touch the back of their head with post-injury preferred hand when seated in the wheelchair.
 - i. The transfer is not assessed as part of this item
 - ii. If participant is able to touch the back of their head with post-injury preferred hand, the participant continues through the tasks (don pullover t-shirt, then don zippered hoodie) seated in the wheelchair.

Lower Body Dressing

- a. The participant is asked to stand for 1 minute without upper extremity support.
 - i. If participant is able to stand for 1 minute without upper extremity support, the participant continues through the tasks in standing. Sitting unsupported (i.e., edge of mat) is permitted for the shoes/orthotics/socks
 - ii. If unable to stand for 1 minute without upper extremity support, the participant is assessed in the preferred environment (wheelchair, bed or mat).
- b. The participant is asked to put long pants on.
- c. The participant is asked to put on shoes and orthotics (as appropriate).
- d. The participant is asked to tie shoes.
- e. The participant is asked to button, zipper, and put on belt (as appropriate).



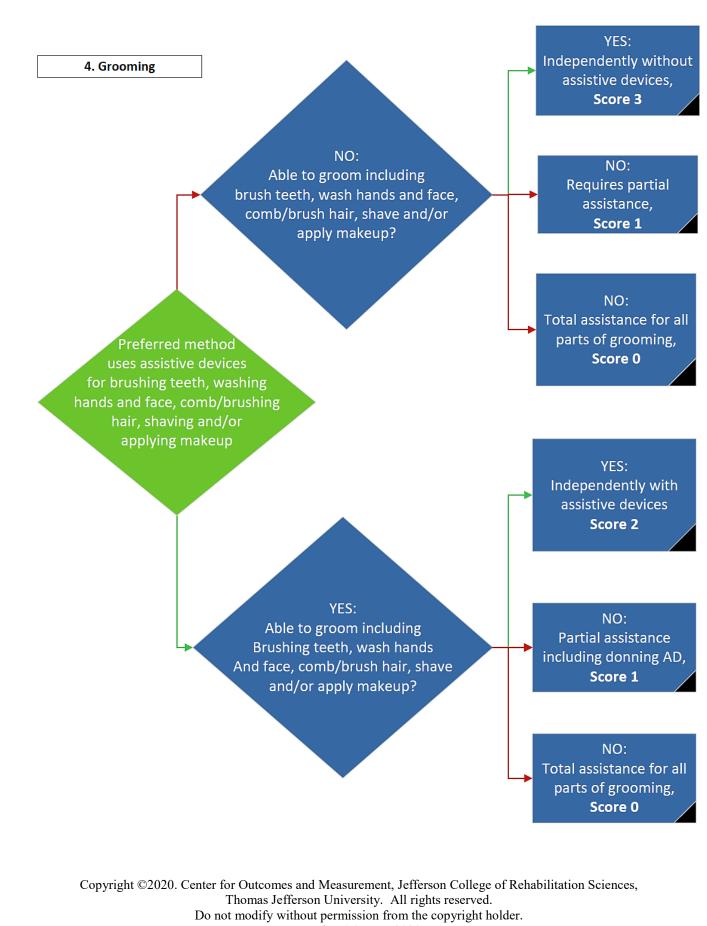


Version 1.0, June 2020

4. Grooming

Required materials: sink with running water, comb, face soap, towel, toothbrush, toothpaste, make up and/or shaving tools

- a. The participant is asked, whether seated or standing at the sink, to touch the top and back of the head. The participant must demonstrate should abduction, flexion, and external rotation. The participant may use either arm for the task and need not demonstrate for both arms.
- b. The participant is asked to hold a comb.
- c. The participant is asked to perform a series of grooming tasks comb hair, wash face/hands, brush teeth, and apply makeup/shave.
- d. If the participant requires assistive devices, then the participant is asked to don assistive devices independently prior to performing the series of grooming tasks listed (see part c for grooming tasks).



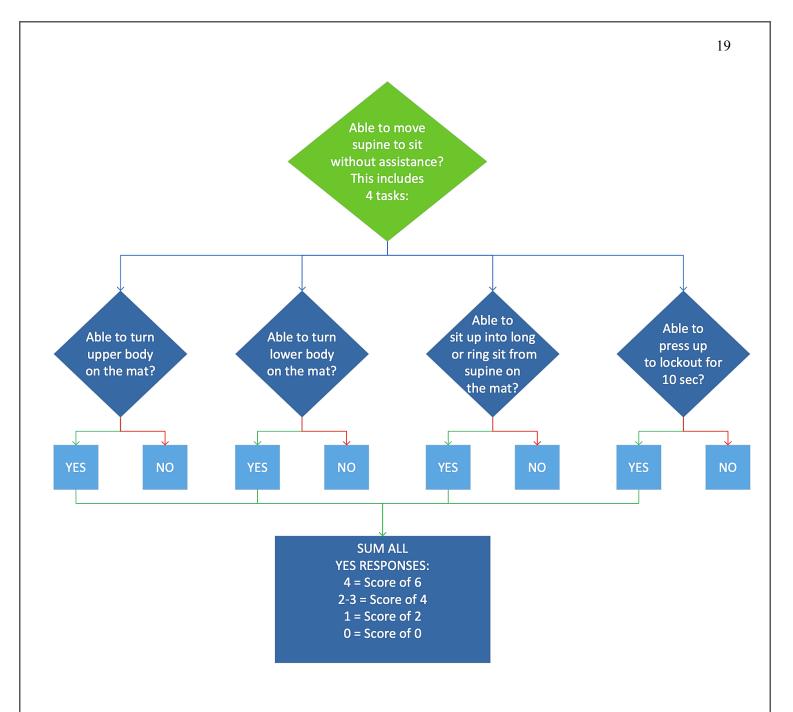
Version 1.0, June 2020

Mobility

5. Mobility in bed and action to prevent pressure injuries

Required materials: bed (bed is recommended; raised mat if bed is not available), wheelchair or standard chair with armrests

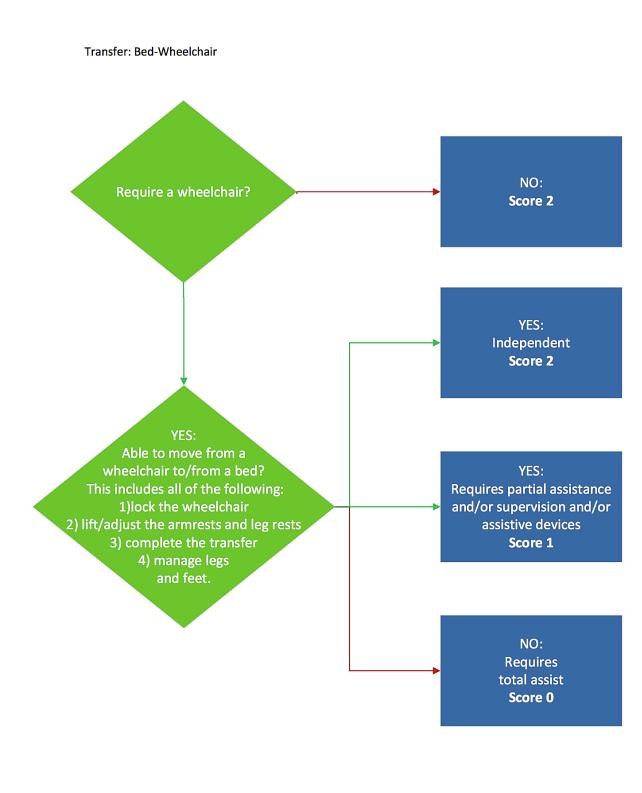
- a. Mobility: The participant is asked to turn the upper and lower body from supine to sidelying on a bed, sit up from complete supine to long sit/ring sit position on a bed, and perform a wheelchair push up.
 - i. If a bed is not available, then test on a mat and document the surface used for testing. Must test on the same surface each time participant is tested.
- b. Push-up in sitting: The participant is asked to press up on arms of chair to elbow lockout position and hold for 10 seconds
 - i. If the participant does not use a wheelchair, then a standard chair with armrests is utilized.



6. Transfers: bed to wheelchair

Required materials: bed (bed is recommended; raised mat if bed is not available), wheelchair

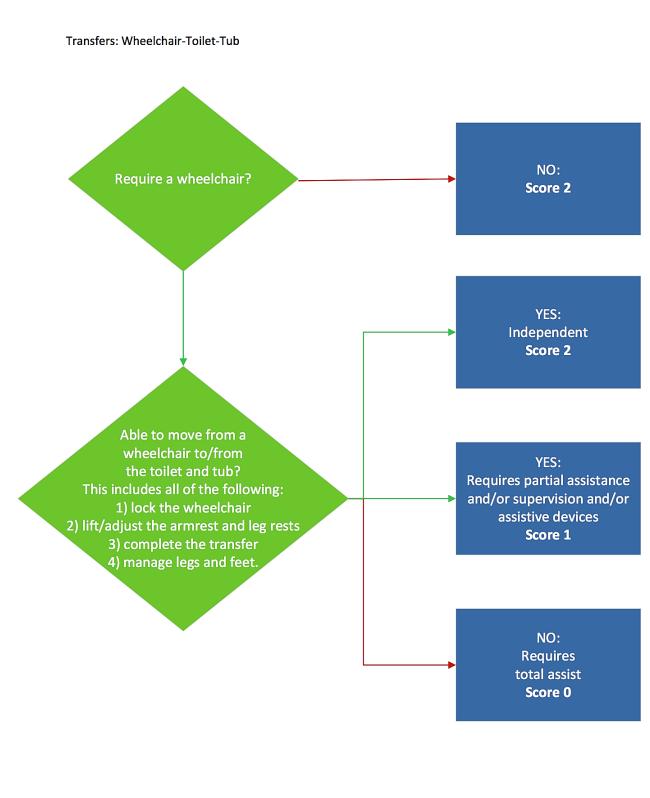
- a. The participant is asked to transfer from a bed at a level height to the wheelchair. Participant is asked to lock the brakes, lift/adjust the footrests/foot plates and armrests (if applicable on the wheelchair) and manage legs and feet.
 - i. The bed and wheelchair should be level with each other.
 - ii. If a bed is not available, then test on a mat and document the surface used for testing. Must test on the same surface each time participant is tested.
- b. The participant is asked to perform "clean transfer" (no hitting hip/buttocks) and move from one surface to the other.
 - i. If the participant is unable to perform transfer without hitting buttocks/hips and putting the skin at risk, a score of "1" is assigned, secondary to need for supervision.
- c. Transfer board, lateral, squat pivot/sit pivot, stand pivot, and ambulatory transfers should be noted on score sheet.



7. Transfers: wheelchair-toilet-tub

Required materials: wheelchair or standard chair with armrests, toilet, tub bench

- a. The participant is asked to transfer from wheelchair or from chair surface onto a tub bench.
 - i. If a tub is not available, then create a simulated tub environment (tub height = 16 inches) and document surface used for testing. Must test using the same simulation each time participant is tested.
- b. The participant is asked to lock the brakes, lift/adjust the footrests/footplates and armrests (if applicable) on the wheelchair, and manage legs and feet.
- c. The participant is asked to perform a clean transfer and safely move from one surface to the other.
- d. The type of transfer performed is recorded on the scoring sheet. The use of any assistive device is recorded on scoring.
- e. Tub bench is set level to the height of the wheelchair or as close to the height of the wheelchair as possible.

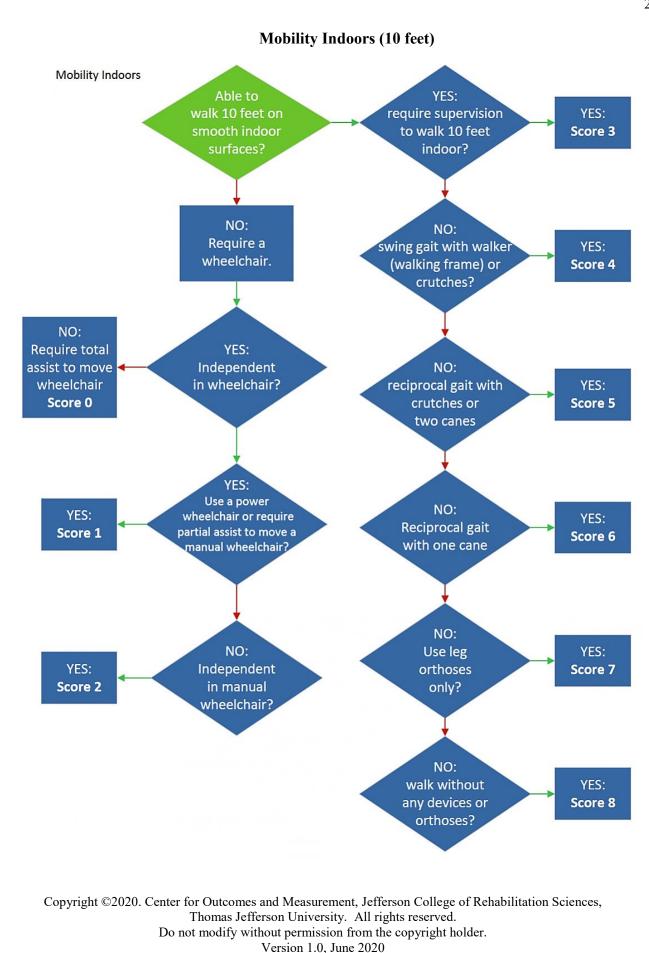


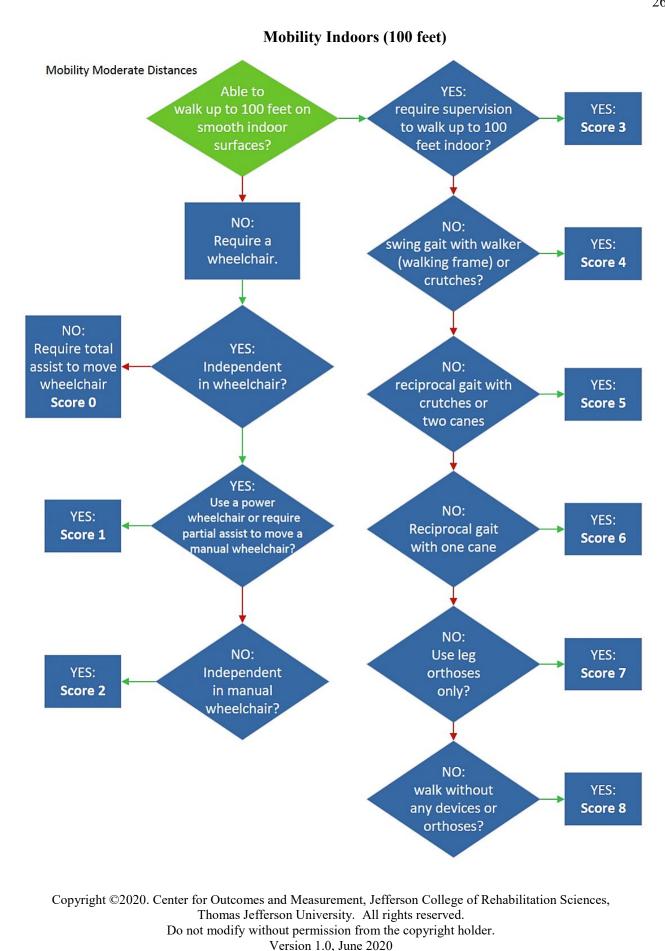
24

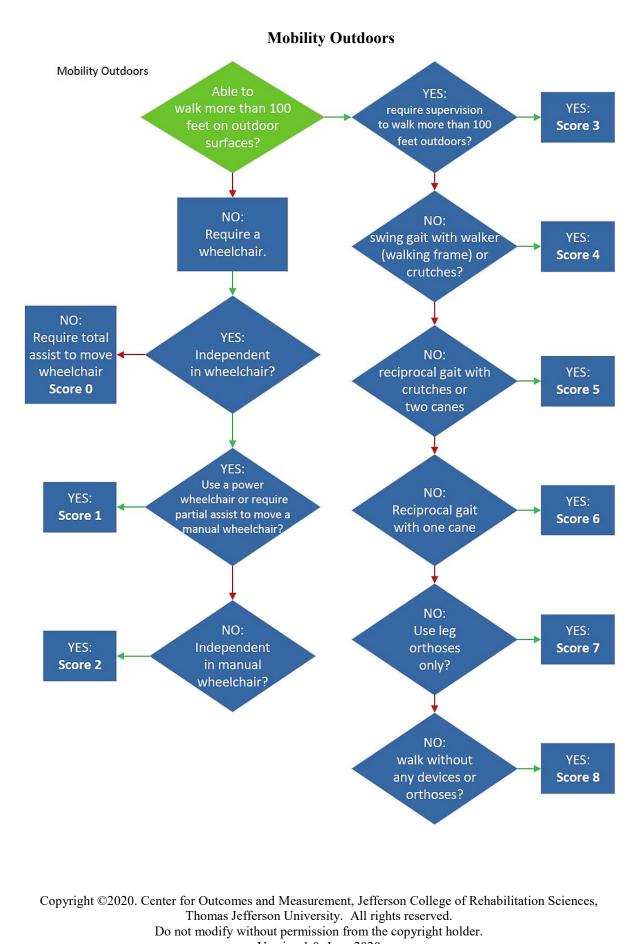
8. Mobility: Indoors, outdoors and on uneven surfaces

Required materials: Traffic cones/color tape/other noticeable or brightly colored objects, wheelchair (as needed), strip of carpet or thin mat (if outdoor surfaces cannot be used)

- a. The participant is asked to move
 - i. Up to 10 meters indoors: the walkway is marked at 10 meters with traffic cones, colored tape, or other visual cues.
 - ii. 10-100 meters indoors; 25 meters is marked with traffic cones, colored tape, or other visual cues.
 - iii. 100 meters outside: traffic cones or bolsters are used to mark 100 meters outside
- b. If a participant uses both walking and wheelchair, administration is done with mode of mobility the participant uses for more than 50% of the time.
 - i. A manual wheelchair with power assist is scored as power wheelchair.
 - ii. If an outdoor environment is not available due to any reason (temperature, weather, no access) a strip of carpet or a thin mat is used for testing.
 - iii. The same testing environment should be used for repeated administrations and noted on the score sheet.





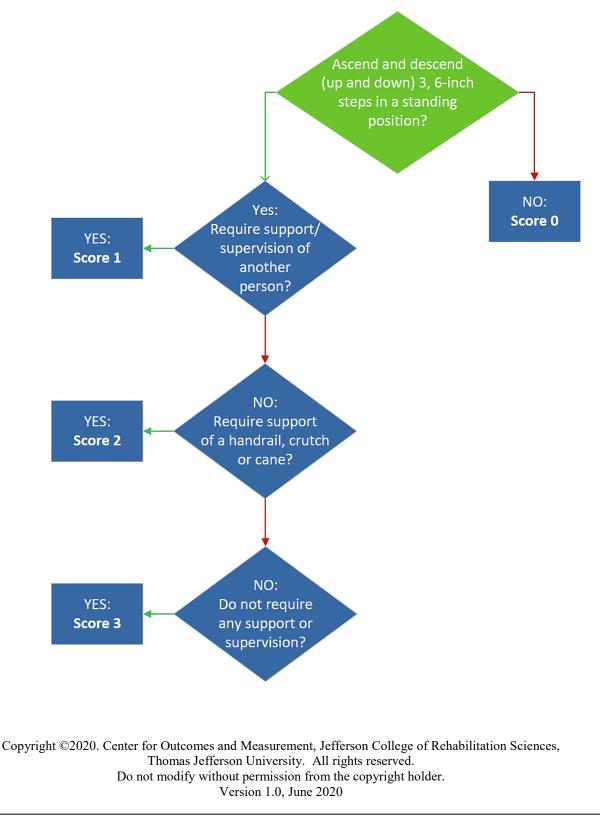


Version 1.0, June 2020

9. Stair management

Required materials: 3 6-inch steps

- a. The participant is asked to ascend and descend 3, 6-inch steps in a standing position.
- b. Standardized stair height = 6 inches
- c. Step-to-step or step-over-step can be used for this item identify which method is used on the score sheet.



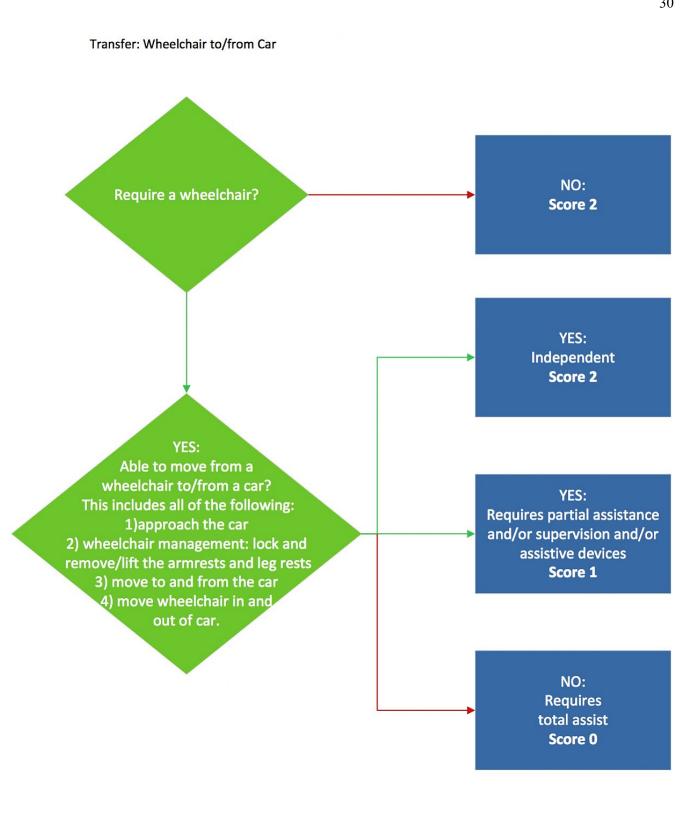
10.Transfers: wheelchair-car

Required materials: wheelchair or standard chair with armrests, raised mat, flat mat (raised mat and flat mat = 23 inches off the ground), 3 wedge mats (see 2 (navy) - 12"x24"x26", 1 (brown) - 12"x24"x36")

- a. Use the simulation set up only (see attached photos for simulation specifications).
- b. Simulation set-up is 3 inches higher than the top of wheelchair cushion.
- c. The participant is to perform transfer from the wheelchair to the car seat including approaching the car, locking the wheelchair brakes, removing/adjusting the armrests (if applicable) and footrests/footplates, and transferring to and from the car. The participant also brings the wheelchair into and out of the car.
- d. If participant utilizes a power wheelchair or indicates participant can't bring the wheelchair into and out of the car, a score of 1 is the highest score given.







11.Transfers: wheelchair-ground

Required materials: wheelchair (if needed)

- a. The participant is asked to move from the floor into the wheelchair and back.
 - i. If the participant is not a wheelchair user, a score of 1 is assigned

