Instrument Introduction

- Objectively measure transfer *quality*
- No other outcome measure evaluates quality
- Evaluates all levels of transfers
  - Independent
  - Dependent
  - With/Without assistance
- All participants can score well, regardless of extent of disability
Part 1

- Transfer is broken into very small components
- Each component is evaluated
- Each transfer is individually evaluated (i.e. each time the person performs a transfer you evaluate them on each item on part 1)
- Columns 1-4 – mat table transfers
Part 2

- Summary of all the transfers performed
- Used to determine how consistent the participant’s transfer quality is over several trials. (*Consistency is very important in upper extremity preservation*)
- General evaluation of ALL of the transfers performed
- Only use part 2 after the participant has performed *all* of the transfers
Pretest setup

- At beginning of the test, elevate the mat table and make it a little bit higher than the participants’ wheelchair. Tell the participant that the mat table is adjustable and he can change the height if necessary.

- If the subject doesn’t lower the mat table
  → item #5 score “N”
  → raters still lower the table, and the subject can start to transfer
Part 1, Item 1

- **Item:** The subject’s wheelchair is within 3 inches of the object to which he is transferring onto.

- Look for this item prior to the person doing the transfer.

- This item is N/A for a person using a transfer lift.
Part 1, Item 2

- **Item:** The angle between the subject’s wheelchair and the surface to which he is transferring should be approximately 20-45 degrees

- This item is N/A for a person using a transfer lift.
Part 1, Item 3

- **Item:** Subject makes every attempt possible to position his chair to perform the transfer forward of the rear wheel (i.e., so he does not go over the rear wheel).

- Look for the person to “scoot” forward.

- Participant is “perched” on the edge of the chair and does not have to go over the large wheel.

- N/A for a person using a transfer lift or a PWC or standing pivot transfer.
Part 1, Item 4

- **Item**: If possible, the subject removes his armrest or attempts to take it out of the way.
  - If help is required, the subject asks an assistant in a clear and assertive manner.

- N/A for a person using a transfer lift, does not have arm rests or the arm rests/sideguards are bolted onto the chair.

- Don’t be afraid to ask the participant if their armrest/sideguards come off.

- If the person has both a removable armrest and a sideguard on the side he is transferring toward, both should be removed.
  - Remove both → Y
  - Remove one of them → N
Part 1, Item 5

- **Item:** The subject performs a level or downhill transfer, whenever possible.
  - The top of the seat cushion is at least level with the surface to which the subject is transferring.

- If the subject lowers or asks to lower the target surface as low as possible, but the target surface is still higher than the chair, this should be scored as “Y” because he/she has attempted to perform a level or downhill transfer.

- N/A for a person using a transfer lift.

- A person doing a dependent lift should still lower the mat table.
Part 1, Item 6

- **Item**: The subject places his feet in a stable position (on the floor if possible) before the transfer.
  - If help is required, the subject asks an assistant to position his feet in a clear and assertive manner.
  - ‘N/A’ for a person using a transfer lift.
  - A person doing a dependent transfer should also have his/her feet on the ground.
Part 1, Item 7

- **Item**: The subject scoots to the front edge of the wheelchair seat before he transfers (i.e. moves his buttocks to the front 2/3rds of the seat).
- *If help if needed, the subject asks an assistant to scoot him to the front 2/3rds of the chair in a clear and assertive manner. (The subject specifically tells the evaluator what position on the chair he needs to be scooted to.)*
- N/A for a person using a transfer lift and standing pivot transfer.
Part 1, Item 8

- **Item**: Hands are in a stable position prior to the start of the transfer.
  - Push off hand is close to the body
  - Leading hand is close to where he will be landing.

- When considering a “stable” position, do you feel the person could stay in this position for 30 seconds?

- It is okay for a participant to place their hands on a cushioned surface (slightly unstable) if they have no other choice.

- Wheelchair needs to be locked.

- N/A for a person using a transfer lift or performing a completely dependent transfer (such as a quad pivot).
Part 1, Item 8

- **Item**: Hands are in a stable position prior to the start of the transfer.
  - Push off hand is close to the body
  - Leading hand is close to where he will be landing.

- For a person using standing pivot transfer, he can keep one hand stable, the other hand can change support surface.→ Y
Part 1, Item 9

- **Item**: A handgrip is utilized correctly by the leading arm *(when the handgrip is in the individual’s base of support.)*
  - If no handgrip is available or outside the individual’s base of support, the hand should be placed flat on the transfer surface.

- A hand grip (including the edge of the surface -- i.e. mat table, bed, etc) is used in the correct manner if the grip is within the individual’s base of support and the participant doesn’t have to take the humerus out of alignment with the glenoid fossa.
Part 1, Item 9 (con’t)

- If the participant uses a handgrip that is not within the base of support the item should be scored as “N”.

- If no handgrip is available, or it is outside of the base of support, the participant should place the hand flat on the support surface. (This should be scored as a “Y”).

- If the participant uses a fisted hand, they should be scored as “N.”

- If a person has limited hand function and with limited grip, the person should place his/her hand flat with finger flexed on the surface.
Part 1, Item 10

- **Item:** A handgrip is utilized correctly by the trailing arm *(when the handgrip is in the individual’s base of support.)*
  - If no handgrip is available or outside the individual’s base of support, the hand should be placed flat on the transfer surface.

- SAME explanation of item #9

- This time you are looking at the trailing arm
Part 1, Item 11

- **Item**: Flight is well controlled
  - The transfer is smooth and uses coordinated movements.
  - The person appears to be safe and able to complete the skill in a controlled manner. *(Does not have to be perfect, just controlled)*

- This item is applicable for all participants.

- Use your judgment

- Does the participant look “prepared” to do the transfer?
Part 1, Item 12

- **Item**: Head-hip relationship is used
  - The head moves in the opposite direction of the hips to make the transfer easier to perform.
  - Not applicable for subjects who perform a standing pivot transfer or subjects who perform a dependent transfer with a lift.
  - The head hips relationship should be applied for a dependent transfer without a lift.
Part 1, Item 13

- **Item**: The lead arm is correctly positioned *(The arm should NOT be extremely internally rotated and should be abducted 30-45 deg when the person is weight bearing on the arm.)*

- The person’s humerus should look “in alignment” with the glenoid fossa.

- Make sure to pay attention if the person is weight bearing on their arm when it is IR/ABD/Flex (especially IR). N/A for a person using a transfer lift, standing pivot transfer, or being dependently transferred.

- *Don’t rate the participant until there are weight bearing on the arm!!*
Part 1, Item 14

- **Item**: The landing phase of the transfer is smooth and well controlled (i.e., hands are not flying off the support surface and the subject is sitting safely on the target surface.)

- Applicable for all participants

- Look for:
  - Flopping down on the surface
  - Landing to close to the edge
  - Wheelchair not secure
  - Do you want to reach out and stabilize the participant?
Part 1, Item 15

- **Item:** *If an assistant is helping, the assistant supports the subject’s arms during the transfer.*

- Only applicable for participants who have a caregiver assisting.
**Part 2, Item 1**

- **Item:** *The lead arm is positioned correctly during the weight bearing portion of the transfer (The arm should NOT be extremely internally rotated and should be abducted 30-45 deg.)*

- Make sure to pay attention if the person is weight bearing on their arm when it is extremely internally rotated.

- N/A for a person using a transfer lift or being dependently transferred.

- Same thinking as Part 1, item #13 but you are looking to see if the participant is consistent!!
Part 2, Item 2

- **Item:** The subject sets himself up for a safe and easy transfer.

- Applicable for everyone.

- Must use your best judgment (Do you feel nervous, like the person is going to fall?)
  - WC position close to the target?
  - Hand stable?
  - Feet stable?
  - Scoot forward to avoid the rear wheel?
  - Wheelchair is stable?

Do you see any problems in this picture?
Part 2, Item 3

- **Item:** The subject attempts to change the height of the object he is transferring to/from to make the transfer level.
  - If it is physically impossible to make the transfer level, grade the participant on his attempt to lower the surface or states that surface should be lower.

- Evaluate the participant on his/her **ATTEMPT** to change the surface height

- Similar thinking to Part 1, item 5, but you are looking to see if this participant is **consistent!!!**
Part 2, Item 4

- **Item**: The subject gets close to the object that he is transferring on to.

- N/A for a person using a transfer lift.

- Same thinking as Part 1, item 1, 3, 7, but look to see if the participant is **consistent!!**
Part 2, Item 5

- **Item**: The subject uses handgrips when necessary.
  - The subject does not attempt to reach outside his BOS to use a handgrip.

- A handgrip is used in the correct manner if the handgrip is within the participant’s base of support.

- If the participant uses a handgrip that is not within his base of support (i.e. has to reach out far), the score should be lowered.

- If there is no handgrip, or it is outside of the participant’s base of support, the participant should place the hand flat on the support surface.

- Use of a fisted hand should be reflected in a lowered score.

- Similar thinking to Part 1, item 9 and 10, but you are looking to see if this participant is **consistent!!!**
Part 2, Item 6

- **Item:** The subject uses a transfer device when necessary.
  - *In the presence of weakness or injury*
  - *Dependent Transfer = Transfer Lift*

- A person who is independent with transfers and does not appear to be “struggling” with the transfer should be scored as a “4”

- You need to make a judgment if you think the person would benefit from the device, but the device is not negatively impacting their independence.

- Proper use of a transfer device would decrease the loading on the limb, decrease the effort put into the transfer, and make the transfer easier.
Part 2, Item 7

- **Item:** The subject attempts to alternate the leading/trailing arm over the course of the assessment.

- Check to see if the person is switching which arm leads

- N/A for dependent transfers or a participant using a lift.
Part 2, Item 8

- **Item:** The transfer is smooth and well controlled.

- This is a judgment call. Does the participant look in control of the situation?

- The transfer does not have to be “pretty,” just well controlled.
  - No imbalance at the start of the transfer
  - The lift phase is high enough
  - No flopping down on the surface
  - No landing to close to the edge

- Does the participant look prepared to do the transfer.

- Applicable for all participants.

- Similar thinking to Part 1, item 11 and 14, but you are looking to see if this participant is **consistent**!!!
Part 2, Item 9

- **Item:** For any assistance the subject needs, he is able to clearly communicate his needs in an assertive and polite manner.

- Only applicable for participants using human assistance.
Part 2, Item 10

- **Item**: The subject does not allow the evaluator/caregiver to pull on his arms during a transfer.

- Only applicable for participants using human assistance.
Part 2, Item 11

- **Item**: The subject corrects the evaluator/caregiver if the evaluator/caregiver attempts to perform the transfer in an unsafe manner. (i.e. pulling on arms, transferring uphill when a downhill transfer is possible)

- Only applicable for participants using human assistance.
Part 2, Item 12

- **Item**: The subject is able to correctly direct his care in an assertive and polite manner.

- Only applicable for participants using human assistance.

- The participant give instructions clearly and accurately. Caregiver responds appropriately.

- If the caregiver is directing, the participant appears to understand what is going on.

- It is okay if the participant and caregiver don’t talk. If the transfer appears smooth and well coordinated, and both parties appear happy, the participant can get a 5.
Videos/Practice time