Wolf Motor Function Test (WMFT)

Name:	Date:

Test (check one): ☐ Pre-treatment ☐ Post-treatment ☐ Follow-up

Least Affected Arm

Task	Time	Functional Ability
1. Forearm to table (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2. Forearm to box (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3. Extend elbow (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4. Extend elbow (weight)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5. Hand to table (front)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6. Hand to box (front)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7. Weight to box	..... lbs	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
8. Reach and retrieve		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
9. Lift can		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
10. Lift pencil		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
11. Lift paper clip		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
12. Stack checkers		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
13. Flip cards		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
14. Grip strength	..... lbs	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
15. Turn key in lock		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
16. Fold towel		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
17. Lift basket		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

More Affected Arm

Task	Time	Functional Ability
1. Forearm to table (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2. Forearm to box (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3. Extend elbow (side)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4. Extend elbow (weight)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5. Hand to table (front)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6. Hand to box (front)		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7. Weight to box	..... lbs	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
8. Reach and retrieve		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
9. Lift can		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
10. Lift pencil		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
11. Lift paper clip		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
12. Stack checkers		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
13. Flip cards		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
14. Grip strength	..... lbs	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
15. Turn key in lock		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
16. Fold towel		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
17. Lift basket		☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

*Adapted from the “The EXCITE Trial: Attributes of the Wolf Motor Function Test in Patients with Subacute Stroke” article by Steven L. Wolf, Paul A. Thompson, David M. Morris, Dorian K. Rose, Carolee J. Winstein, Edward Taub, Carol Giuliani, and Sonya L. Pearson.

Wolf Motor Function Test (WMFT)

- Instruction -

Test Requirement:

- A table that is 28cm long
- Sturdy chair
- Bedside table
- Box (25.4cm tall)
- Wrist weights (1-20 pounds)
- Beverage can (12-oz)
- 7” pencil with six flat sides
- 2” paperclip
- 3 checkers
- 3 note cards (must be 3” x 5”)
- Keylock and key
- Towel
- Basket
- Dynamometer (to measure the patient’s hand grip strength)
- Stopwatch (to time each exercise)
- Video camera (optional, if you want to take video recordings)

Instructions:

- Once you have prepared all the materials above, you may conduct the series of exercises.
- Remember that you must allot 120 seconds for each exercise. Make sure to say “GO” to signal the start of each exercise. You should also make sure to activate your stopwatch as soon as you say “GO,” and to turn it off as soon as they accomplish the exercise or if you say “STOP” after 120 seconds.
- One more reminder is that you have to start with the less-affected limb, then the more-affected limb so that you can compare results later on.
- Now, here are the exercises that they must accomplish. Just make sure to demonstrate each one and have them do each of them in the sequence arranged below:
  a. Forearm to table (side): client attempts to place their forearm on a table by abducting at the shoulder
  b. Forearm to box (side): client attempts to place their forearm on a box, 25.4cm tall, by abduction at the shoulder
  c. Extended elbow (side): client attempts to reach across a table, 28cm long, by extending the elbow (to the side)
  d. Extended elbow (to the side) with 1lb weight: client attempts to push the weight against the outer wrist joint across the table by extending the elbow
  e. Hand to table (front): client attempts to place the involved hand on a table
  f. Hand to the box (front): client attempts to place their hand on the box placed on the tabletop
  g. Weight to the box: client attempts to place the heaviest possible weight on the box placed on the tabletop
  h. Reach and retrieve (front): client attempts to pull 1lb weight across the table by using elbow flexion and cupped wrist
  i. Lift can (front): client attempts to lift a can and bring it close to his/her lips with a cylindrical grasp
  j. Lift pencil (front): client attempts to pick up a pencil by using a 3-jaw chuck grasp.
  k. Pick-up paper clip (front): client attempts to pick up a paper clip by using a pincer grasp
  l. Stack checkers (front): client attempts to stack checkers onto the center checker
  m. Flip 3 cards (front): using the pincer grasp, the client attempts to flip each card over
  n. Grip strength: use the dynamometer to measure this
  o. Turning the key in the lock (front): using a pincer grasp, while maintaining contact, the client turns the key 180 degrees to the left and right
  p. Fold towel (front): client grasps the towel, folds it lengthwise, and then uses the tested hand to fold the towel in half again
  q. Lift basket (standing): client picks up a 3lb basket from a chair by grasping the handles and then have them place it on a bedside table

Scoring:

- 0 = The patient does not attempt with upper extremity (UE) being tested
- 1 = The UE being tested does not participate functionally; however, an attempt is made by the patient to use the UE. In unilateral tasks, the UE not being tested may be used to move the UE being tested.
- 2 = The patient does attempt, but requires the assistance of the UE not being tested for minor readjustments or change of position, or requires more than 2 attempts to complete, or accomplishes very slowly. In bilateral tasks, the UE being tested may serve only as a helper.
- 3 = The patient does attempt, but the movement is influenced to some degree by synergy or is performed slowly or with effort.
- 4 = The patient does attempt; movement is similar to the non-affected side but slightly slower; may lack precision, fine coordination, or fluidity.
- 5 = The patient does attempt, and movement appears to be normal.
- Exercises 7 and 14 are not scored this way. Instead, you will have to indicate the pounds (for Exercise 7) and the grip strength in kgs for (Exercise 14).
- Given this, the maximum score is 75 for each limb, so make sure to assess both.
- There are no specific score ranges and designations to consider, but for your reference, lower scores are indicative of lower functional levels for their upper extremities.
- Don’t forget to indicate the time it took the patient to complete each exercise as well.
- If they are scoring low and it’s evident that they are having trouble with their upper extremities, then you should determine what goes into your care plan based on your observations. It’s also best that you conduct other assessments to cover more ground.

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