

## MOTOR ASSESSMENT SCALE

Agency: \_\_\_\_\_ PID #: \_\_\_\_\_ Date: \_\_\_\_\_ CPT #: \_\_\_\_\_

Patient Name: \_\_\_\_\_ Therapist: \_\_\_\_\_

*If the patient cannot complete any part of a section score a zero (0) for that section. There are 9 sections in all.*

### **Supine to Side-lying onto intact side** (starting position: supine with knees straight)

1. Uses intact arm to pull body toward intact side. Uses intact leg to hook impaired leg to pull it over.
2. Actively moves impaired leg across body to roll but leaves impaired arm behind.
3. Impaired arm is lifted across body with other arm. Impaired leg moves actively & body follows as a block.
4. Actively moves impaired arm across body. The rest of the body moves as a block.
5. Actively moves impaired arm and leg rolling to intact side but overbalances.
6. Rolls to intact side in 3 seconds without use of hands.

### **Supine to Sitting over side of bed**

1. Pt assisted to the side-lying position: Patient lifts head sideways but can't sit up.
2. Pt may be assisted to side-lying & is assisted to sitting but has head control throughout.
3. Pt may be assisted to side-lying & is assisted with lowering LEs off bed to assume sitting.
4. Pt may be assisted to side-lying but is able to sit up without help.
5. Pt able to move from supine to sitting without help.
6. Pt able to move from supine to sitting without help in 10 seconds.

### **Balance Sitting**

1. Pt is assisted to sitting and needs support to remain sitting.
2. Pt sits unsupported for 10 seconds with arms folded, knees and feet together & feet on the floor.
3. Pt sits unsupported with weight shifted forward and evenly distributed over both hips / legs. Head and thoracic spine extended.
4. Sits unsupported with feet together on the floor. Hands resting on thighs. Without moving the legs the patient turns the head and trunk to look behind the right and left shoulders.
5. Sits unsupported with feet together on the floor. Without allowing the legs or feet to move & without holding on the patient must reach forward to touch the floor (10 cm or 4 inches in front of them) The affected arm may be supported if necessary.
6. Sits on stool unsupported with feet on the floor. Pt reaches sideways without moving the legs or holding on and returns to sitting position. Support affected arm if needed.

### **Sitting to Standing**

1. Pt assisted to standing – any method.
2. Pt assisted to standing. The patient's weight is unevenly distributed & may use hands for support.
3. Pt stands up. The patient's weight is evenly distributed but hips and knees are flexed – No use of hands for support.
4. Pt stands up. Remains standing for 5 seconds with hips and knees extended with weight evenly distributed.
5. Pt stands up and sits down again. When standing hips & knees are extended with weight evenly distributed
6. Pt stands up and sits down again 3 x in 10 seconds with hips & knees extended & weight evenly distributed

### **Walking**

1. With assistance the patient stands on affected leg with the affected weight bearing hip extended and steps forward with the intact leg.
2. Walks with the assistance of one person.
3. Walks 10 feet or 3 meters without assistance but with an assistive device.
4. Walks 16 feet or 5 meters without a device or assistance in 15 seconds.
5. Walks 33 feet or 10 meters without assistance or a device. Is able to pick up a small object from the floor with either hand and walk back in 25 seconds.
6. Walks up and down 4 steps with or without a device but without holding on to a rail 3 x in 35 seconds.

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**Upper Arm Function**

1. Supine: Therapist places affected arm in 90 degrees shoulder flexion and holds elbow in extension – hand toward ceiling. The patient protracts the affected shoulder actively.
2. Supine: Therapist places affected arm in above position. The patient must maintain the position for 2 seconds with some external rotation and with the elbow in at least 20 degrees of full extension.
3. Supine: Patient assumes above position and brings hand to forehead and extends the arm again. (flexion & extension of elbow) Therapist may assist with supination of forearm.
4. Sitting: Therapist places affected arm in 90 degrees of forward flexion. Patient must hold the affected arm in position for 2 seconds with some shoulder external rotation and forearm supination. No excessive shoulder elevation or pronation.
5. Sitting: Patient lifts affected arm to 90 degrees forward flexion - holds it there for 10 seconds and then lowers it with some shoulder external rotation and forearm supination. No pronation.
6. Standing: Have patient's affected arm abducted to 90 degrees with palm flat against wall. Patient must maintain arm position while turning body toward the wall.

**Hand Movements**

1. Sitting at a table (Wrist Extension): Affected forearm resting on table. Place cylindrical object in palm of patient's hand. Patient asked to lift object off table by extending the wrist – no elbow flexion allowed.
2. Sitting at a table (Radial Deviation of Wrist): Therapist should place forearm with ulnar side on table in mid-pronation / supination position. Thumb in line with forearm and wrist in extension. Fingers around cylindrical object. Patient is asked to lift hand off table. No wrist flexion or extension.
3. Sitting (Pronation / Supination): Affected arm on table with elbow unsupported at side. Patient asked to supinate and pronate forearm (¾ range acceptable).
4. Place a 5 inch ball on the table so that the patient has to reach forward with arms extended to reach it. Have the patient reach forward with shoulders protracted, elbows extended, wrist in neutral or extended, pick up the ball with both hands and put it back down in the same spot.
5. Have the patient pick up a polystyrene cup with their affected hand and put it on the table on the other side of their body without any alteration to the cup.
6. Continuous opposition of thumb to each finger 14 x in 10 seconds. Each finger in turn taps the thumb, starting with the index finger. Do not allow thumb to slide from one finger to the other or go backwards.

**Advanced Hand Activities**

1. Have the patient reach forward to pick up the top of a pen with their affected hand, bring the affected arm back to their side and put the pen cap down in front of them.
2. Place 8 jellybeans, (beans), in a teacup an arms length away on the affected side. Place another teacup an arms length away on the intact side. Have the patient pick up one jellybean with their affected hand and place the jellybean in the cup on the intact side.
3. Draw a vertical line on a piece of paper. Have the patient draw horizontal lines to touch the vertical line. The goal is 10 lines in 20 seconds with at least 5 lines stopping at the vertical.
4. Have the patient pick up a pen/pencil with their affected hand, hold the pen as for writing, and position it without assistance and make rapid consecutive dots (not strokes) on a sheet of paper. Goal: at least 2 dots a second for 5 seconds.
5. Have the patient take a dessert spoon of liquid to their mouth with their affected hand without lowering the head toward the spoon or spilling.
6. Have the patient hold a comb and comb the back of their head with the affected arm in abduction and external rotation, forearm in supination.

**General Tonus (check one – add “6” to score if tone on affected side is normal)**

- Flaccid, limp, no resistance when body parts are handled.
  - Some resistance felt as body parts are moved.
  - Variable, sometimes flaccid, sometimes good tone, sometimes hypertonic.
  - Hypertonic 50% of the time
  - Hypertonic all of the time
- 6 = Consistently normal response

*This test is designed to assess the return of function following a stroke or other neurological impairment. The test looks at a patient's ability to move with low tone or in a synergistic pattern and finally move actively out of that pattern into normal movement.*

*The higher the score – the higher functioning the patient is on the affected side.*

*High Score: 54*

*Low Score: 0*