Study Visit 3 / Day 30 +/- 10 days

| N1a. | Date: / / 2 0 | 9 N | ot done |
|---------------|--|--|--|
| N1b. | Evaluation location: | Neurology clinic Hospital Outside Facility Telehealth-video Telehealth-phone | 0 |
| N2. CI | inical Rating Scales | | |
| | a. NIHSS completed? b. TMT completed? c. SIS completed? d. MOCA completed? e. FSS completed? f. CAM-ICU completed? g. mRS completed? | Yes 1 | No ° □ |
| N3. Li | ving Situation – Day 30 +/- 10 of Dead Home (same as prior to stroke) Home (different from prior to st Rehabilitation facility Nursing facility Other | 0 1 | |
| N4. R6 | ecurrent stroke since last visit deficits: motor, cognitive, visua | | es, does patient have new functional |
| (if patio | ent is expired: Date | Cause | , |
| ` . | | | No ⁰ ☐ (If yes, describe reason below:) |
| | | | |
| N6. Ha | ve there been any serious adv | verse events since last | visit? Yes ¹☐ No º☐ (If yes, describe |
| | | | |

| | NEST # |
|---|------------------|
| | Date:// |
| | Visit 3 / Day 30 |
| | |
| | |
| | |
| 7. Has the patient started any of the following medications with potential side effects since the last visit: seizure medications, anticholinergopiates? Yes 1 No 0 (If yes, describe below:) | |
| | |
| | |
| | |

| NEST # | | |
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| Date: | _/_ | _/_ |
| Visit 3 / | Day | 30 |

35 Fatigue Severity Scale (FSS)

168

FATIGUE SEVERITY SCALE

| During the past week, I have found that: | Strongly Disagree | | | Neither Agree Nor Disagree | | | Strongly Agree |
|---|----------------------|---|---|-------------------------------|---|---|----------------|
| My motivation is lower when I am fatigued. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Exercise brings on my fatigue. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. I am easily fatigued. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Fatigue interferes with my physical functioning. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Fatigue causes frequent problems for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My fatigue prevents sustained physical functioning. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Fatigue interferes with carrying out certain duties and responsibilities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Fatigue is among my three most disabling symptoms. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Fatigue interferes with my work, family, or social life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Krupp et al.[4]. Copyright © 1989 American Medical Association. All rights reserved.

References

- Kleinman, L., Zodet, M. W., Hakim, Z., Aledort, J., Barker, C., Chan, K., Krupp, L., & Revicki, D. (2000). Psychometric evaluation of the fatigue severity scale for use in chronic hepatitis C. *Quality of Life Research*, 9, 499–508.
- Herlofson, L., & Larsen, J. P. (2002). Measuring fatigue in patients with Parkinson's disease – the fatigue severity scale. *European Journal of Neurology*, 9, 595–600.
- 3. Schneider, R. A. (2004). Chronic renal failure: assessing the fatigue severity scale for use among caregivers. *Journal of Clinical Nursing*, *13*(2), 219–225.
- Krupp, L. B., LaRocca, N. G., Muir-Nash, J., & Steinberg, A. D. (1989). The fatigue severity scale: application to patients with multiple sclerosis and systemic lupus erythematosus. Archives of Neurology, 46, 1121–1123.

Representative Studies Using Scale

Téllez, N., Río, J., Tintoré, M., Nos, C., Galán, I., & Montalban, X. (2006). Fatigue in multiple sclerosis persists over time. *Journal of Neurology*, 253(11), 1466–1470.

Naess, H., Waje-Andreassen, U., Thomassen, L., Nyland, H., & Myhr, K. M. (2006). Health-related quality of life among young adults with ischemic stroke on longterm follow-up. *Stroke*, 37, 1232–1236.

MONTREAL COGNITIVE ASSESSMENT (MoCA®)

Version 8.1 BLIND English

NEST V3 / Day 30

NAME:

EDUCATION:

Sex:

Date of birth:

DATF:

| | | | | , | | | | | | |
|---|---------------------------|-------------------|---------------|--------------|-----------------|-------------|--------|--|--|--|
| MEMORY | | FACE | VELVET | CHURCH | DAISY | RED | POINTS | | | |
| Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. | 1st TRIAL | | | | | | NO | | | |
| Do a recall after 5 minutes. | 2nd TRIAL | | | | | | POINTS | | | |
| ATTENTION | Subject I | has to rep | eat in the | forward or | der. [] | 2 1 8 5 4 | /2 | | | |
| Read list of digits (1 digit / sec.). | Subject I | has to rep | eat in the | backward | order. [|] 7 4 2 | | | | |
| Read list of letters. The subject must tap | at each let | ter A. No | points if ≥ | 2 errors | | | /1 | | | |
| [] FBACMNAAJ | K L B A | F A K D | EAA | A J A M | O F A A | В | | | | |
| Seria 7 subtraction starting at 100 | [] 93 | [] | 86 [|] 79 | [] 72 | [] 65 | /3 | | | |
| 4 or 5 correct subtractions: 3 pts , | 2 or 3 co | rrect: 2 pt: | s, 1 corr | ect: 1 pt, | 0 correct: 0 | pt | | | | |
| LANGUAGE | I only kno | w that Johi | n is the one | to help to | day. | [] | /2 | | | |
| Repeat: | The cat a | lways hid u | nder the co | ouch when c | logs were in tl | ne room [] | | | | |
| Fluency: Name maximum number of word | ls in one m | inute that | begin wit | | r F. (N ≥ 1 | l 1words) | /1 | | | |
| ABSTRACTION | | | []t | train - bicy | cle | | /2 | | | |
| Similarity between e.g. orange - banana = fruit | - | [] watch - ruler | | | | | | | | |
| DELAYED RECALL | Has to recall words | FACE | VELVET | CHURCH | DAISY | RED | /5 | | | |
| Memory (MIS) X3 | WITLENO | [] | [] | [] | [] | [] | | | | |
| Index X2 | Category cue | | | | | | NO | | | |
| Score X1 | Multiple choice cue | | | | | | POINTS | | | |
| ORIENTATION | [] Dat | e [] Mo | nth []Y | ear []D | ay []Place | [] City | /6 | | | |
| © Z. Nasreddine MD | | www | .mocate: | st.org | TOTAL | | /22 | | | |
| Administered by : | | Add 1 point | if ≤ 12 yr eo | du | MIS: /15 | (Normal ≥ | 19/22) | | | |

Training and Certification are required to ensure accuracy

| NEST # | |
|------------------|--|
| Date:// | |
| Visit 3 / Day 30 | |

Oral Trail Making Test (Optional)

DESCRIPTION

Brief measure assessing mental sequencing and switching.

SOURCE

Ricker JH, Axelrod BN, Houtler BD. Clinical validation of the oral trail making test. Neuropsychiatry Neuropsychology and Behavioral Neurology. 1996;9(1):50-53.

For normative data, please see: Strauss, E., Sherman, E. M. S., & Spreen, O. (2006). A compendium of neuropsychological tests: Administration, norms, and commentary (3rd ed.). Oxford University Press.

INSTRUCTIONS

Part A

Examiner: "OK, here is something a little different. I'd like you to count from 1 to 25 as quickly as you can. 1, 2, 3, 4, and so on. Ready? Begin."

Start timing as soon as you say "Begin." If a mistake is made, stop the participant and have them continue with the series from the last correct number by saying: "You last said '[specific number],' please continue from there." Do not stop timing during corrections.

If the participant stops for 5 seconds or more before completing, you may prompt with "Please keep going." If the participant does not recall where they are, provide the last correct response by saying: "You last said '[specific number],' please continue from there," and score as an error. After a further delay of 15 seconds or more, discontinue. Enter the appropriate reason code 995-998 from the key and leave total number of errors and correct responses blank. Allow a maximum of 100 seconds for the test. If the participant is not finished by 100 seconds, the score is 100.

Record the time in seconds to complete the series, including the time to offer corrections. Be sure to write down where errors occurred on the score sheet. You will record the total number of errors as well.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | | | | | | | | | | | | | | | | | | | | | |

| Time to completion: | (seconds) |
|-------------------------|---------------|
| Total number of errors: | = |
| Total number correct: | |

| NEST # | |
|------------------|--|
| Date://_ | |
| Visit 3 / Day 30 | |

PART B

Examiner: "Now I'd like you to switch between numbers and letters when you count. So you would say the number 1, and then say the letter A, then number 2, then letter B and so on, as quickly as you can. Let's do a practice trial first. Count to the number 4, switching between numbers and letters. Ready? Begin."

If participant makes a mistake, say, "No, that was incorrect, it should be 1, A, 2, B, 3, C, 4." Allow participant to practice up to three attempts. Repeat instructions with guidance twice. If participant still does not understand, discontinue Part B and go on to the next task. Record the time to completion as "300," enter the appropriate reason code, 995–998, from the key, and leave total number of errors and correct responses blank.

If participant is able to complete the practice say: "Now I want you to switch between numbers and letters when you count 1, A, 2, B, 3, C, and so on until you reach the number 13. Ready, begin."

Start timing as soon as you say "Begin." If a mistake is made, stop the participant and have them continue with the series from the last correct pair by saying: "You said '[specific number] [specific letter];' Continue from there." Do not stop timing during corrections. If the participant stops for 5 seconds or more before completing, you may prompt with "Please keep going." If the participant does not recall where they are, provide last correct pair by saying: "You said '[specific number] [specific letter];'continue from there," and score as an error. You can remind the participant "Number-letter" to keep them on task. After a further delay of 15 seconds or more, discontinue and enter the appropriate reason code, 995–998, from the key and leave total number of errors and correct responses blank. Allow a maximum of 300 seconds for the test. If the participant is not finished by 300 seconds, the score is 300.

Record the time in seconds to complete the series, including the time to offer corrections. Be sure to write down where errors occur on the score sheet. You will record the total number of errors as well.

| Pra | ctice | 1 | | | | | | F | Prac | tice | 2 | | | | | | F | Practice 3 | | | | | | |
|------|------------------|--------|---|---|---|---|---|---|------|------|---|---|---|---|---|---|---|------------|---|----|---|----|---|----|
| 1 | A | 2 | В | 3 | C | 4 | | | 1 | Α | 2 | В | 3 | C | 4 | | , | 1 | A | 2 | В | 3 | C | 4 |
| | | | | _ | _ | | | | | | | | | | 1 | _ | | | | | | | | |
| Atte | empt | t | | | | | | | | | | | | | | | | | | | | | | |
| Atte | empt A | t 2 | В | 3 | С | 4 | D | 5 | E | 6 | F | 7 | G | 8 | Н | 9 | I | 10 | J | 11 | K | 12 | L | 13 |

Oral Trail Making Test, Part B Scoring worksheet

| Time to completion: | (seconds) |
|-------------------------|---------------|
| Total number of errors: | = |
| Total number correct: | |

| NEST # | _ |
|-----------------|----|
| Date:/ | _/ |
| Visit 3 / Day 3 | 30 |

Richmond Agitation Sedation Scale (RASS) *

| Score | Term | Description | |
|-------|-------------------|---|----------------------|
| +4 | Combative | Overtly combative, violent, immediate danger to staff | |
| +3 | Very agitated | Pulls or removes tube(s) or catheter(s); aggressive | |
| +2 | Agitated | Frequent non-purposeful movement, fights ventilator | |
| +1 | Restless | Anxious but movements not aggressive vigorous | |
| 0 | Alert and calm | | |
| -1 | Drowsy | Not fully alert, but has sustained awakening | |
| | | (eye-opening/eye contact) to <i>voice</i> (≥10 seconds) | Verbal |
| -2 | Light sedation | Briefly awakens with eye contact to voice (<10 seconds) | Stimulation |
| -3 | Moderate sedation | Movement or eye opening to voice (but no eye contact) | |
| -4 | Deep sedation | No response to voice, but movement or eye opening |) 5 |
| | | to physical stimulation | Physical Stimulation |
| -5 | Unarousable | No response to voice or physical stimulation | |

Procedure for RASS Assessment

| 4 | \sim 1 | |
|----|---------------|---------|
| | Observe | nationt |
| 1. | O D S C I V C | pancin |

a. Patient is alert, restless, or agitated. (score 0 to +4)

2. If not alert, state patient's name and *say* to open eyes and look at speaker.

- b. Patient awakens with sustained eye opening and eye contact. (score –1)
- c. Patient awakens with eye opening and eye contact, but not sustained. (score -2)
- d. Patient has any movement in response to voice but no eye contact. (score -3)
- 3. When no response to verbal stimulation, physically stimulate patient by shaking shoulder and/or rubbing sternum.
 - e. Patient has any movement to physical stimulation. (score –4)
 - f. Patient has no response to any stimulation. (score –5)

^{*} Sessler CN, Gosnell M, Grap MJ, Brophy GT, O'Neal PV, Keane KA et al. The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care patients. Am J Respir Crit Care Med 2002; 166:1338-1344.

^{*} Ely EW, Truman B, Shintani A, Thomason JWW, Wheeler AP, Gordon S et al. Monitoring sedation status over time in ICU patients: the reliability and validity of the Richmond Agitation Scale (RASS). JAMA 2003; 289:2983-2991.

| NEST #_ | | _ |
|---------|-----|----|
| Date: | _/_ | _/ |

| CAM-ICU Worksneet | | Visit 3 / Day 3 | 30 |
|---|--------|-----------------------|----|
| Feature 1: Acute Onset or Fluctuating Course | Score | Check here if Present | |
| Is the pt different than his/her baseline mental status? OR | Either | | |

Has the patient had any fluctuation in mental status in the past 24 hours as question Yes П evidenced by fluctuation on a sedation scale (i.e., RASS), GCS, or previous delirium assessment? **Feature 2: Inattention Letters Attention Test** (See training manual for alternate **Pictures**) <u>Directions</u>: Say to the patient, "I am going to read you a series of 10 letters. Number of Whenever you hear the letter 'A,' indicate by squeezing my hand." Read Errors $>2 \rightarrow$ letters from the following letter list in a normal tone 3 seconds apart. SAVEAHAART Errors are counted when patient fails to squeeze on the letter "A" and when the patient squeezes on any letter other than "A." Feature 3: Altered Level of Consciousness RASS Present if the Actual RASS score is anything other than alert and calm (zero) anything other П than zero → Feature 4: Disorganized Thinking **Yes/No Questions** (See training manual for alternate set of questions) 1. Will a stone float on water? 2. Are there fish in the sea? 3. Does one pound weigh more than two pounds? 4. Can you use a hammer to pound a nail? Combined Errors are counted when the patient incorrectly answers a question. number of errors >1→ **Command** Say to patient: "Hold up this many fingers" (Hold 2 fingers in front of patient) "Now do the same thing with the other hand" (Do not repeat number of fingers) *If pt is unable to move both arms, for 2nd part of command ask patient to "Add one more finger"

| Overall CAM-ICU | Criteria Met → | □ CAM-ICU Positive |
|--|--------------------|---------------------------------------|
| Feature 1 <u>plus</u> 2 <u>and</u> either 3 <u>or</u> 4 present = CAM-ICU positive | Criteria Not Met → | (Delirium Present) CAM-ICU Negative |

An error is counted if patient is unable to complete the entire command.

| NEST # | |
|------------------|--|
| Date:// | |
| Visit 3 / Day 30 | |

Stroke Impact Scale VERSION 3.0

The purpose of this questionnaire is to evaluate how stroke has impacted your health and life. We want to know from **YOUR POINT OF VIEW** how stroke has affected you. We will ask you questions about impairments and disabilities caused by your stroke, as well as how stroke has affected your quality of life. Finally, we will ask you to rate how much you think you have recovered from your stroke.

| NEST # | | | |
|-----------|-----|-----|---|
| Date: | _/_ | _/_ | _ |
| Visit 3 / | Day | 30 | |

Stroke Impact Scale

These questions are about the physical problems which may have occurred as a result of your stroke.

| 1. In the past week, how would you rate the strength of your | A lot of strength | Quite a bit of strength | Some strength | A little strength | No strength at all |
|--|----------------------|-------------------------|------------------|----------------------|--------------------------|
| a. Arm that was <u>most affected</u> by your stroke? | 5 | 4 | 3 | 2 | 1 |
| b. Grip of your hand that was most affected by your stroke? | 5 | 4 | 3 | 2 | 1 |
| c. Leg that was <u>most affected</u> by your stroke? | 5 | 4 | 3 | 2 | 1 |
| d. Foot/ankle that was most affected by your stroke? | 5 | 4 | 3 | 2 | 1 |

These questions are about your memory and thinking.

| 2. In the past week, how difficult was it for you to | Not difficult at all | A little difficult | Somewhat difficult | Very difficult | Extremely difficult |
|---|----------------------------|-----------------------|-----------------------|-------------------|---------------------|
| a. Remember things that people just told you? | 5 | 4 | 3 | 2 | 1 |
| b. Remember things that happened the day before? | 5 | 4 | 3 | 2 | 1 |
| c. Remember to do things (e.g. keep scheduled appointments or take medication)? | 5 | 4 | 3 | 2 | 1 |
| d. Remember the day of the week? | 5 | 4 | 3 | 2 | 1 |
| e. Concentrate? | 5 | 4 | 3 | 2 | 1 |
| f. Think quickly? | 5 | 4 | 3 | 2 | 1 |
| g. Solve everyday problems? | 5 | 4 | 3 | 2 | 1 |

| NEST # | |
|------------------|--|
| Date:// | |
| Visit 3 / Day 30 | |

These questions are about how you feel, about changes in your mood and about your ability to control your emotions since your stroke.

| 3. In the past week, how often did you | None of the time | A little of the time | Some of the time | Most of the time | All of the time |
|---|------------------|----------------------|------------------|------------------|-----------------|
| a. Feel sad? | 5 | 4 | 3 | 2 | 1 |
| b. Feel that there is nobody you are close to? | 5 | 4 | 3 | 2 | 1 |
| c. Feel that you are a burden to others? | 5 | 4 | 3 | 2 | 1 |
| d. Feel that you have nothing to look forward to? | 5 | 4 | 3 | 2 | 1 |
| e. Blame yourself for mistakes that you made? | 5 | 4 | 3 | 2 | 1 |
| f. Enjoy things as much as ever? | 5 | 4 | 3 | 2 | 1 |
| g. Feel quite nervous? | 5 | 4 | 3 | 2 | 1 |
| h. Feel that life is worth living? | 5 | 4 | 3 | 2 | 1 |
| i. Smile and laugh at least once a day? | 5 | 4 | 3 | 2 | 1 |

The following questions are about your ability to communicate with other people, as well as your ability to understand what you read and what you hear in a conversation.

| 4. In the past week, how difficult was it to | Not difficult at all | A little difficult | Somewhat difficult | Very difficult | Extremely difficult |
|--|----------------------------|-----------------------|-----------------------|-------------------|---------------------|
| a. Say the name of someone who was in front of you? | 5 | 4 | 3 | 2 | 1 |
| b. Understand what was being said to you in a conversation? | 5 | 4 | 3 | 2 | 1 |
| c. Reply to questions? | 5 | 4 | 3 | 2 | 1 |
| d. Correctly name objects? | 5 | 4 | 3 | 2 | 1 |
| e. Participate in a conversation with a group of people? | 5 | 4 | 3 | 2 | 1 |
| f. Have a conversation on the telephone? | 5 | 4 | 3 | 2 | 1 |
| g. Call another person on the telephone, including selecting the correct phone number and dialing? | 5 | 4 | 3 | 2 | 1 |

| NEST # | | _ |
|-----------|-----|----|
| Date: | _/_ | _/ |
| Visit 3 / | Day | 30 |

The following questions ask about activities you might do during a typical day.

| 5. In the past 2 weeks, how difficult was it to | Not difficult at all | A little difficult | Somewhat difficult | Very difficult | Could not do at all |
|--|-------------------------|-----------------------|-----------------------|-------------------|------------------------|
| a. Cut your food with a knife and fork? | 5 | 4 | 3 | 2 | 1 |
| b. Dress the top part of your body? | 5 | 4 | 3 | 2 | 1 |
| c. Bathe yourself? | 5 | 4 | 3 | 2 | 1 |
| d. Clip your toenails? | 5 | 4 | 3 | 2 | 1 |
| e. Get to the toilet on time? | 5 | 4 | 3 | 2 | 1 |
| f. Control your bladder (not have an accident)? | 5 | 4 | 3 | 2 | 1 |
| g. Control your bowels (not have an accident)? | 5 | 4 | 3 | 2 | 1 |
| h. Do light household tasks/chores (e.g. dust, make a bed, take out garbage, do the dishes)? | 5 | 4 | 3 | 2 | 1 |
| i. Go shopping? | 5 | 4 | 3 | 2 | 1 |
| j. Do heavy household chores (e.g. vacuum, laundry or yard work)? | 5 | 4 | 3 | 2 | 1 |

The following questions are about your ability to be mobile, at home and in the community.

| 6. In the past 2 weeks, how difficult was it to | Not difficult at all | A little difficult | Somewhat difficult | Very difficult | Could not do at all |
|---|----------------------------|-----------------------|-----------------------|-------------------|---------------------------|
| a. Stay sitting without losing your balance? | 5 | 4 | 3 | 2 | 1 |
| b. Stay standing without losing your balance? | 5 | 4 | 3 | 2 | 1 |
| c. Walk without losing your balance? | 5 | 4 | 3 | 2 | 1 |
| d. Move from a bed to a chair? | 5 | 4 | 3 | 2 | 1 |
| e. Walk one block? | 5 | 4 | 3 | 2 | 1 |
| f. Walk fast? | 5 | 4 | 3 | 2 | 1 |
| g. Climb one flight of stairs? | 5 | 4 | 3 | 2 | 1 |
| h. Climb several flights of stairs? | 5 | 4 | 3 | 2 | 1 |
| i. Get in and out of a car? | 5 | 4 | 3 | 2 | 1 |

| NEST #_ | | |
|-------------|-----|----|
| Date: | _/_ | _/ |
| Visit 3 / I | Day | 30 |

The following questions are about your ability to use your hand that was MOST AFFECTED by your stroke.

| 7. In the past 2 weeks, how difficult was it to use your hand that was most affected by your stroke to | Not difficult at all | A little difficult | Somewhat difficult | Very difficult | Could not do at all |
|--|----------------------------|-----------------------|-----------------------|-------------------|---------------------|
| a. Carry heavy objects (e.g. bag of groceries)? | 5 | 4 | 3 | 2 | 1 |
| b. Turn a doorknob? | 5 | 4 | 3 | 2 | 1 |
| c. Open a can or jar? | 5 | 4 | 3 | 2 | 1 |
| d. Tie a shoe lace? | 5 | 4 | 3 | 2 | 1 |
| e. Pick up a dime? | 5 | 4 | 3 | 2 | 1 |

The following questions are about how stroke has affected your ability to participate in the activities that you usually do, things that are meaningful to you and help you to find purpose in life.

| 8. During the past 4 weeks, how much of the time have you been | None of the time | A little of the time | Some of the time | Most of the time | All of the time |
|--|------------------|----------------------|------------------|------------------|-----------------|
| limited in | | | | | |
| a. Your work (paid, voluntary or other) | 5 | 4 | 3 | 2 | 1 |
| b. Your social activities? | 5 | 4 | 3 | 2 | 1 |
| c. Quiet recreation (crafts, reading)? | 5 | 4 | 3 | 2 | 1 |
| d. Active recreation (sports, outings, travel)? | 5 | 4 | 3 | 2 | 1 |
| e. Your role as a family member and/or friend? | 5 | 4 | 3 | 2 | 1 |
| f. Your participation in spiritual or religious activities? | 5 | 4 | 3 | 2 | 1 |
| g. Your ability to control your life as you wish? | 5 | 4 | 3 | 2 | 1 |
| h. Your ability to help others? | 5 | 4 | 3 | 2 | 1 |

| NEST # | |
|------------------|---|
| Date:// | - |
| Visit 3 / Day 30 | |

9. Stroke Recovery

On a scale of 0 to 100, with 100 representing full recovery and 0 representing no recovery, how much have you recovered from your stroke?

| 100 | Full Recovery |
|---------|---------------|
| 90 | |
| 80 | |
| 70 | |
| 60 | |
| 50 | |
| 40 | |
| 30 | |
| 20 | |
| 10 | |
| _ 0 | No Recovery |

http://www.kumc.edu/school-of-medicine/preventive-medicine-and-public-health/research-and-community-engagement/stroke-impact-scale.html

| NEST # |
|------------------|
| Date:// |
| Visit 3 / Day 30 |

The Modified Rankin Scale (mRS)

(Use web calculator at www.modifiedrankin.com)

- 0 No symptoms
- 1 No significant disability; able to carry out all usual activities, despite some symptoms
- 2 Slight disability; able to look after own affairs without assistance, but unable to carry out all previous activities
- 3 Moderate disability; requires some help, but able to walk unassisted
- 4 Moderately severe disability; unable to attend to own bodily needs without assistance, and unable to walk unassisted
- 5 Severe disability; requires constant nursing care and attention, bedridden, incontinent
- 6 Dead

References:

Rankin J (May 1957). "Cerebral vascular accidents in patients over the age of 60. II. Prognosis". Scott Med J 2 (5): 200–15

Patel, N., et al. Simple and reliable determination of the modified Rankin Scale in neurosurgical and neurological patients: The mRS-9Q. *Neurosurgery*, published online in advance of print 26 July 2012



| NEST V | isit 3 | | | |
|-----------------------|-------------------|----|----|---|
| Patient I | dentification | | | |
| | Pt. Date of Birth | / | /_ | |
| Hospital _. | | (| |) |
| | Date of Exam | /_ | /_ | |

| [] 24 hours post onset of symptoms ±20 minutes | [] 7-10 days |
|--|--|
| | |
| | |
| | [] 24 hours post onset of symptoms ±20 minutes |

Administer stroke scale items in the order listed. Record performance in each category after each subscale exam. Do not go back and change scores. Follow directions provided for each exam technique. Scores should reflect what the patient does, not what the clinician thinks the patient can do. The clinician should record answers while administering the exam and work quickly. Except where indicated, the patient should not be coached (i.e., repeated requests to patient to make a special effort).

Instructions Scale Definition Score Level of Consciousness: The investigator must choose a Alert; keenly responsive. response if a full evaluation is prevented by such obstacles as an Not alert; but arousable by minor stimulation to obey, endotracheal tube, language barrier, orotracheal trauma/bandages. A answer, or respond. 3 is scored only if the patient makes no movement (other than reflexive 2 = Not alert; requires repeated stimulation to attend, or is posturing) in response to noxious stimulation. obtunded and requires strong or painful stimulation to make movements (not stereotyped). 3 = Responds only with reflex motor or autonomic effects or totally unresponsive, flaccid, and areflexic. **1b.** LOC Questions: The patient is asked the month and his/her age. 0 = Answers both questions correctly. The answer must be correct - there is no partial credit for being close. Aphasic and stuporous patients who do not comprehend the questions Answers one question correctly. will score 2. Patients unable to speak because of endotracheal intubation, orotracheal trauma, severe dysarthria from any cause, Answers neither question correctly. language barrier, or any other problem not secondary to aphasia are given a 1. It is important that only the initial answer be graded and that the examiner not "help" the patient with verbal or non-verbal cues. 1c. LOC Commands: The patient is asked to open and close the 0 = **Performs** both tasks correctly. eyes and then to grip and release the non-paretic hand. Substitute another one step command if the hands cannot be used. Credit is 1 = **Performs** one task correctly. given if an unequivocal attempt is made but not completed due to weakness. If the patient does not respond to command, the task 2 = Performs neither task correctly. should be demonstrated to him or her (pantomime), and the result scored (i.e., follows none, one or two commands). Patients with trauma, amputation, or other physical impediments should be given suitable one-step commands. Only the first attempt is scored. 2. Best Gaze: Only horizontal eye movements will be tested. 0 = Normal.Voluntary or reflexive (oculocephalic) eye movements will be scored, but caloric testing is not done. If the patient has a conjugate 1 = Partial gaze palsy; gaze is abnormal in one or both eyes, deviation of the eyes that can be overcome by voluntary or reflexive but forced deviation or total gaze paresis is not present. activity, the score will be 1. If a patient has an isolated peripheral nerve paresis (CN III, IV or VI), score a 1. Gaze is testable in all 2 = Forced deviation, or total gaze paresis not overcome by the aphasic patients. Patients with ocular trauma, bandages, pre-existing oculocephalic maneuver. blindness, or other disorder of visual acuity or fields should be tested with reflexive movements, and a choice made by the investigator. Establishing eye contact and then moving about the patient from side to side will occasionally clarify the presence of a partial gaze palsy.



| NEST Visit | 3 | | | |
|-------------|-------------------|---|----|---|
| Patient Ide | ntification | | | |
| | Pt. Date of Birth | / | /_ | |
| Hospital | | (| |) |
| | Date of Exam | / | /_ | |

| | Hospital((| - |
|---|---|---|
| SCALE | Date of Exam/ | |
| Interval: [] Baseline | | |
| 3. Visual: Visual fields (upper and lower quadrants) are tested by confrontation, using finger counting or visual threat, as appropriate. Patients may be encouraged, but if they look at the side of the moving fingers appropriately, this can be scored as normal. If there is unilateral blindness or enucleation, visual fields in the remaining eye are scored. Score 1 only if a clear-cut asymmetry, including quadrantanopia, is found. If patient is blind from any cause, score 3. Double simultaneous stimulation is performed at this point. If there is extinction, patient receives a 1, and the results are used to respond to item 11. | 0 = No visual loss. 1 = Partial hemianopia. 2 = Complete hemianopia. 3 = Bilateral hemianopia (blind including cortical blindness). | |
| 4. Facial Palsy: Ask – or use pantomime to encourage – the patient to show teeth or raise eyebrows and close eyes. Score symmetry of grimace in response to noxious stimuli in the poorly responsive or non-comprehending patient. If facial trauma/bandages, orotracheal tube, tape or other physical barriers obscure the face, these should be removed to the extent possible. | 0 = Normal symmetrical movements. 1 = Minor paralysis (flattened nasolabial fold, asymmetry on smiling). 2 = Partial paralysis (total or near-total paralysis of lower face). 3 = Complete paralysis of one or both sides (absence of facial movement in the upper and lower face). | |
| 5. Motor Arm: The limb is placed in the appropriate position: extend the arms (palms down) 90 degrees (if sitting) or 45 degrees (if supine). Drift is scored if the arm falls before 10 seconds. The aphasic patient is encouraged using urgency in the voice and pantomime, but not noxious stimulation. Each limb is tested in turn, beginning with the non-paretic arm. Only in the case of amputation or joint fusion at the shoulder, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice. | 0 = No drift; limb holds 90 (or 45) degrees for full 10 seconds. 1 = Drift; limb holds 90 (or 45) degrees, but drifts down before full 10 seconds; does not hit bed or other support. 2 = Some effort against gravity; limb cannot get to or maintain (if cued) 90 (or 45) degrees, drifts down to bed, but has some effort against gravity. 3 = No effort against gravity; limb falls. 4 = No movement. UN = Amputation or joint fusion, explain: 5a. Left Arm | |
| | 5b. Right Arm | |
| 6. Motor Leg: The limb is placed in the appropriate position: hold the leg at 30 degrees (always tested supine). Drift is scored if the leg falls before 5 seconds. The aphasic patient is encouraged using urgency in the voice and pantomime, but not noxious stimulation. Each limb is tested in turn, beginning with the non-paretic leg. Only in the case of amputation or joint fusion at the hip, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice. | 0 = No drift; leg holds 30-degree position for full 5 seconds. 1 = Drift; leg falls by the end of the 5-second period but does not hit bed. 2 = Some effort against gravity; leg falls to bed by 5 seconds, but has some effort against gravity. 3 = No effort against gravity; leg falls to bed immediately. 4 = No movement. UN = Amputation or joint fusion, explain: 6a. Left Leg | |
| | 6b. Right Leg | |



| NEST Visit Patient Ide | 3 ntification | | | |
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| SIRUKE | Hospital (| | |
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| SCALE | Date of Exam/ | / | |
| Interval: [] Baseline [] 2 hours post treatment [] 24 ho | | ٦ | |
| 7. Limb Ataxia: This item is aimed at finding evidence of a unilateral cerebellar lesion. Test with eyes open. In case of visual defect, ensure testing is done in intact visual field. The finger-nose-finger and heel-shin tests are performed on both sides, and ataxia is scored only if present out of proportion to weakness. Ataxia is absent in the patient who cannot understand or is paralyzed. Only in the case of amputation or joint fusion, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice. In case of blindness, test by having the patient touch nose from extended arm position. | 0 = Absent. 1 = Present in one limb. 2 = Present in two limbs. UN = Amputation or joint fusion, explain: | | |
| 8. Sensory: Sensation or grimace to pinprick when tested, or withdrawal from noxious stimulus in the obtunded or aphasic patient. Only sensory loss attributed to stroke is scored as abnormal and the examiner should test as many body areas (arms [not hands], legs, trunk, face) as needed to accurately check for hemisensory loss. A score of 2, "severe or total sensory loss," should only be given when a severe or total loss of sensation can be clearly demonstrated. Stuporous and aphasic patients will, therefore, probably score 1 or 0. The patient with brainstem stroke who has bilateral loss of sensation is scored 2. If the patient does not respond and is quadriplegic, score 2. Patients in a coma (item 1a=3) are automatically given a 2 on this item. | 0 = Normal; no sensory loss. 1 = Mild-to-moderate sensory loss; patient feels pinprick is less sharp or is dull on the affected side; or there is a loss of superficial pain with pinprick, but patient is aware of being touched. 2 = Severe to total sensory loss; patient is not aware of being touched in the face, arm, and leg. | | |
| 9. Best Language: A great deal of information about comprehension will be obtained during the preceding sections of the examination. For this scale item, the patient is asked to describe what is happening in the attached picture, to name the items on the attached naming sheet and to read from the attached list of sentences. Comprehension is judged from responses here, as well as to all of the commands in the preceding general neurological exam. If visual loss interferes with the tests, ask the patient to identify objects placed in the hand, repeat, and produce speech. The intubated patient should be asked to write. The patient in a coma (item 1a=3) will automatically score 3 on this item. The examiner must choose a score for the patient with stupor or limited cooperation, but a score of 3 should be used only if the patient is mute and follows no one-step commands. | 0 = No aphasia; normal. 1 = Mild-to-moderate aphasia; some obvious loss of fluency or facility of comprehension, without significant limitation on ideas expressed or form of expression. Reduction of speech and/or comprehension, however, makes conversation about provided materials difficult or impossible. For example, in conversation about provided materials, examiner can identify picture or naming card content from patient's response. 2 = Severe aphasia; all communication is through fragmentary expression; great need for inference, questioning, and guessing by the listener. Range of information that can be exchanged is limited; listener carries burden of communication. Examiner cannot identify materials provided from patient response. 3 = Mute, global aphasia; no usable speech or auditory comprehension. | | |
| 10. Dysarthria: If patient is thought to be normal, an adequate sample of speech must be obtained by asking patient to read or repeat words from the attached list. If the patient has severe aphasia, the clarity of articulation of spontaneous speech can be rated. Only if the patient is intubated or has other physical barriers to producing speech, the examiner should record the score as untestable (UN), and clearly write an explanation for this choice. Do not tell the patient why he or she is being tested. | 0 = Normal. 1 = Mild-to-moderate dysarthria; patient slurs at least some words and, at worst, can be understood with some difficulty. 2 = Severe dysarthria; patient's speech is so slurred as to be unintelligible in the absence of or out of proportion to any dysphasia, or is mute/anarthric. UN = Intubated or other physical barrier, explain: | | |

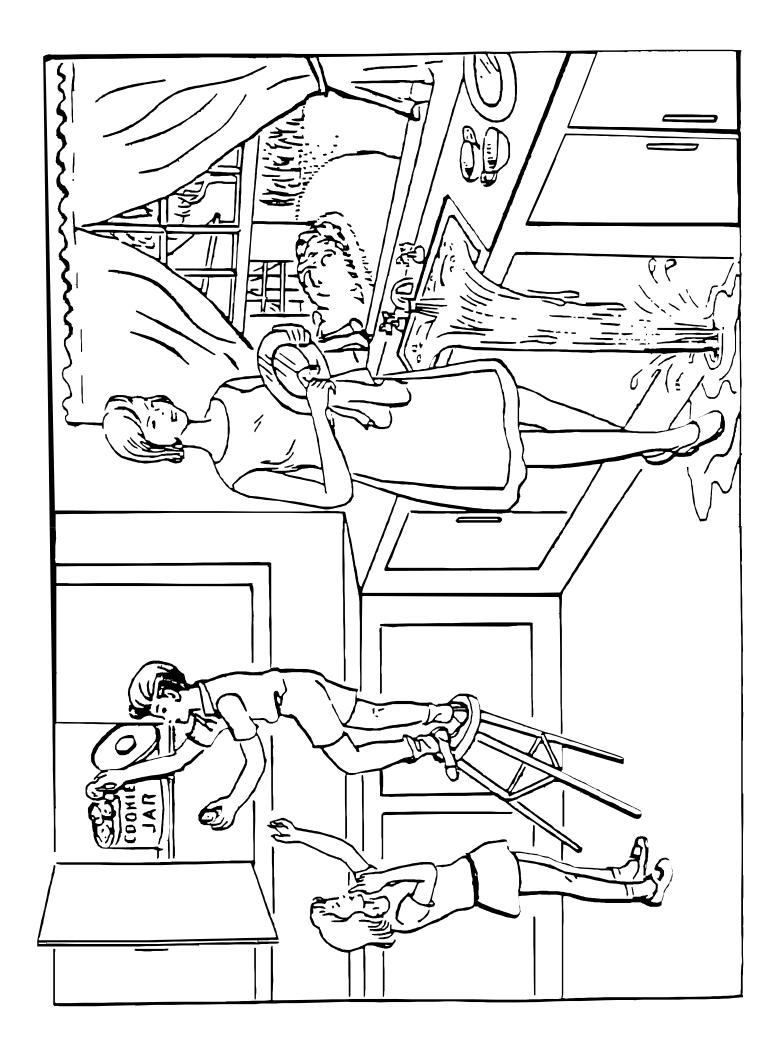


| NIH | NEST Visit 3 Patient Identification | | |
|---|---|----|--|
| STROKE | Pt. Date of Birth/ | | |
| SCALE | Date of Exam / | _/ | |
| Interval: [] Baseline [] 2 hours post treatment [] 24 ho | | | |
| 11. Extinction and Inattention (formerly Neglect): Sufficient information to identify neglect may be obtained during the prior testing. If the patient has a severe visual loss preventing visual | 0 = No abnormality. 1 = Visual, tactile, auditory, spatial, or personal inattention | | |

Extinction and Inattention (formerly Neglect): Sufficient information to identify neglect may be obtained during the prior testing. If the patient has a severe visual loss preventing visual double simultaneous stimulation, and the cutaneous stimuli are normal, the score is normal. If the patient has aphasia but does appear to attend to both sides, the score is normal. The presence of visual spatial neglect or anosagnosia may also be taken as evidence of abnormality. Since the abnormality is scored only if present, the item is never untestable.

- 1 = Visual, tactile, or extinction to bilateral simultaneous stimulation in one of the sensory modalities.
- 2 = Profound hemi-inattention or extinction to more than one modality; does not recognize own hand or orients to only one side of space.

Rev 10/1/2003



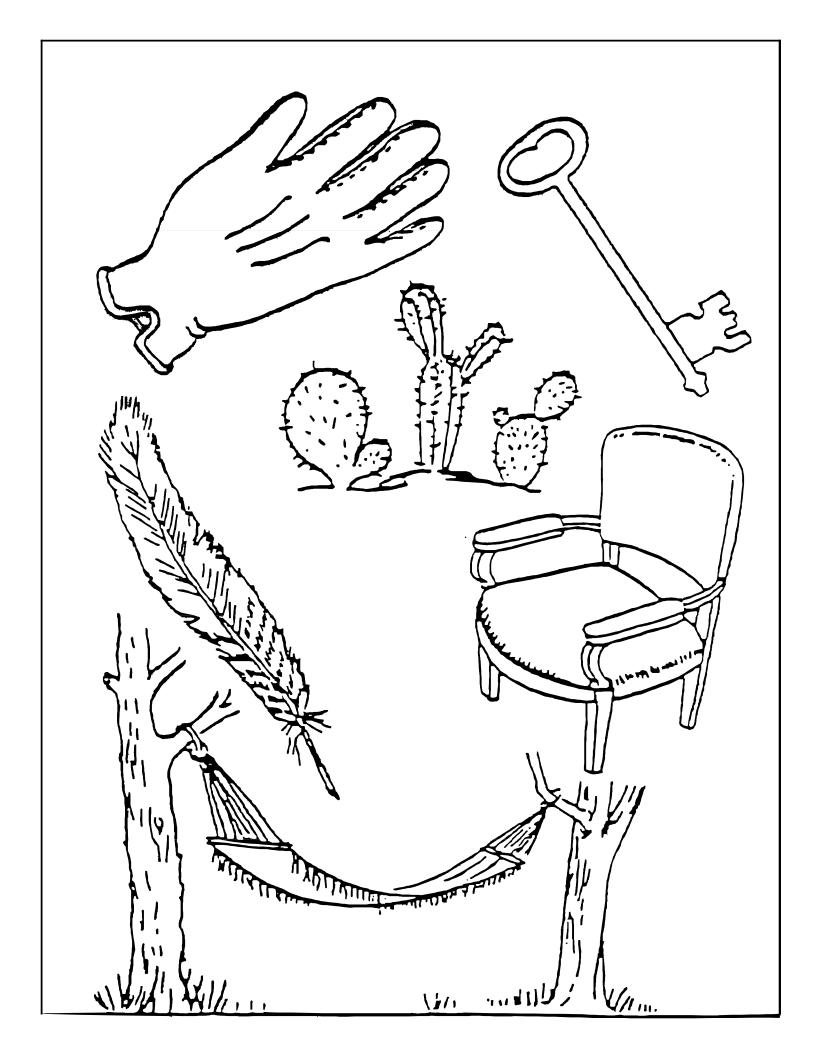
You know how.

Down to earth.

I got home from work.

Near the table in the dining room.

They heard him speak on the radio last night.



MAMA

TIP - TOP

FIFTY - FIFTY

THANKS

HUCKLEBERRY

BASEBALL PLAYER