NIHSS Packet

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NIH Stroke Scale

		Score
1a. Level of Consciousness:	0 = Alert (eyes open spontaneously) 1 = Arousable (requires minor stimulation to obey, answer, or respond) 2 = Obtunded (requires repeated stimulation to attend) 3 = Coma (responds only with reflex motor or autonomic effects or totally unresponsive)	_____
1b. LOC Questions: *Ask the month and pts age. There is no partial credit for being close. Only the initial answer should be graded and the examiner should not "help" the patient with verbal or non-verbal cues.*	0 = Answers both questions correctly 1 = Answers one question correctly Intubation, orotracheal trauma, severe dysarthria and language barrier also score 1 2 = Answers neither question correctly, including aphasic and stuporous patients who do not comprehend the questions Coma = 2	_____
1c. LOC Commands: *Ask or pantomime 2 commands, i.e. close the eyes and make a fist.*	0 = Performs both tasks correctly 1 = Performs one task correctly 2 = Performs neither task correctly Coma = 2	_____
2. Best Gaze: *Horizontal voluntary (tracking) or reflexive (Doll's maneuver or oculocephalic reflex, OCR) eye movements are tested.*	0 = Normal; Congenital strabismus, vertical gaze palsy, nystagmus, skew deviation. 1 = Gaze palsy that can be overcome by voluntary or reflexive (Doll's maneuver) eye movement Isolated oculomotor nerve palsy also scores 1. 2 = Forced deviation that cannot be overcome by voluntary or reflexive eye movement Coma: test OCR	_____
3. Visual fields: *Tested by finger counting/hand waving or blink to threat, as appropriate. If there is unilateral blindness or enucleation, test visual fields in the remaining eye.*	0 = No visual loss or monocular vision loss 1 = Partial hemianopia, quadrantanopia or visual neglect 2 = Complete hemianopia 3 = Bilateral blindness (blind including cortical blindness) Coma: test BTT	_____
4. Facial Palsy: *Score symmetry of grimace in response to noxious stimuli in the poorly responsive or non-comprehending patient.*	0 = Normal symmetrical movements 1 = Minor paralysis (subtle lower facial palsy) 2 = Partial paralysis (**obvious lower facial palsy**) 3 = Complete paralysis of one or both sides (**upper and lower facial palsy**) Coma = 3	_____
5. Motor Arm: *Extend the arms (**palms down**) 90 degrees (if sitting) or 45 degrees (if supine). The aphasic patient is encouraged using pantomime.*	0 = No drift x 10 sec 1 = Drifts, but does not touch bed x 10 sec 2 = Drifts down to bed in less than or equal to 10 sec, but has some effort against gravity 3 = No effort against gravity; arm falls to bed immediately 4 = No movement or coma **(do not score movement with noxious stim)** UN = Amputation or joint fusion, explain: Coma = 8	LEFT _____ RIGHT _____
6. Motor Leg: *The leg is placed at 30 degrees (always tested supine). The aphasic patient is encouraged using pantomime. **Do not score the initial dip when you let go of the leg.***	0 = No drift x 5 sec 1 = Drifts, but does not touch bed x 5 sec 2 = Drifts to bed in less than or equal to 5 sec, but has some effort against gravity 3 = No effort against gravity; leg falls to bed immediately 4 = No movement or coma **(do not score movement with noxious stim)** UN = Amputation or joint fusion, explain: Coma = 8	LEFT _____ RIGHT _____
7. Limb Ataxia: *Finger-nose-finger and heel-shin tests are tested bilaterally. **Ataxia is scored only if present out of proportion to weakness.***	0 = Absent. Ataxia is absent in the patient who cannot understand or is paralyzed. 1 = Present in one limb 2 = Present in two limbs UN = Amputation or joint fusion, explain: Coma = 0	_____
8. Sensory: *Sensation to pinprick or grimace to noxious stimuli in the obtunded or aphasic patient.*	0 = Normal sensation 1 = Decreased sensation; pinprick feels less sharp on the affected side. Neglect = 1. 2 = Absent sensation or bilateral sensory loss. ***Do not score sensory loss due to cause other than stroke, i.e. neuropathy.*** Coma = 2	_____
9. Best Language: *Use of NIHSS cards is not required, but formally assessing fluency, naming, repetition, and comprehension is recommended.*	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. 2 = Severe aphasia; all communication is through fragmentary expression. Range of information that can be exchanged is limited. 3 = Mute, global aphasia; no usable speech or auditory comprehension Coma = 3	_____
10. Dysarthria: *If the patient has severe aphasia, the clarity of articulation of spontaneous speech can be rated.*	0 = Normal. Intubated also scores 0. 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: Coma = 2	_____
11. Extinction and Inattention (formerly Neglect): ***Score only if present**. If the patient has aphasia but does appear to attend to both sides, the score is normal.*	0 = No abnormality detected. 1 = Visual, tactile, auditory, spatial, or personal inattention 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 Coma = 2	_____
TOTAL		_____

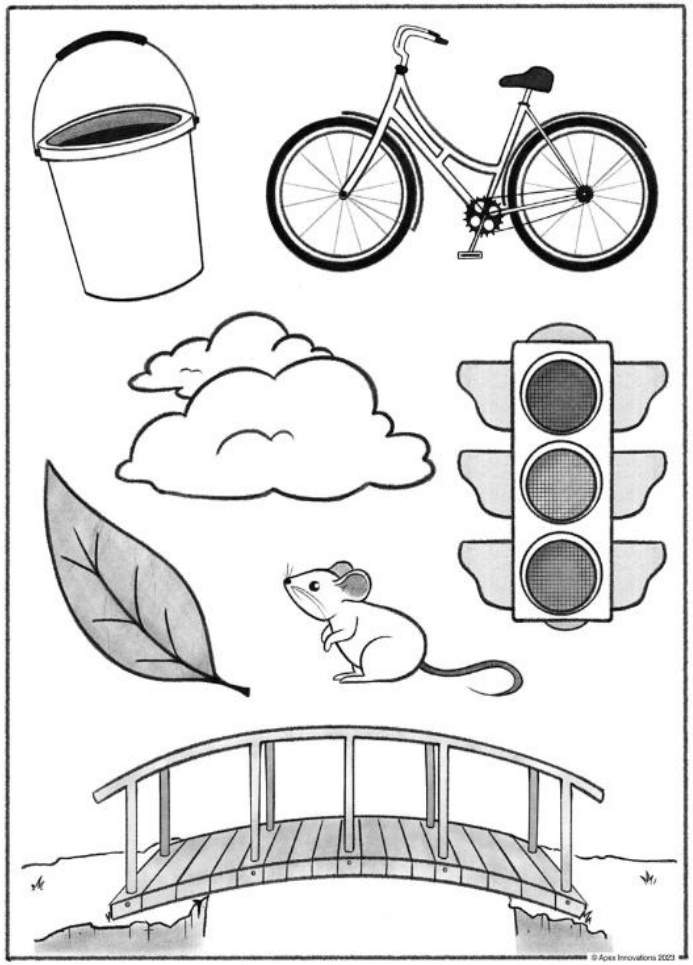
NIH Stroke Scale – Coma (including medication-induced)

There are accepted **default values for COMA** in the NIHSS that should be used as below.
(also already marked on the NIHSS scoring sheet under each individual item)

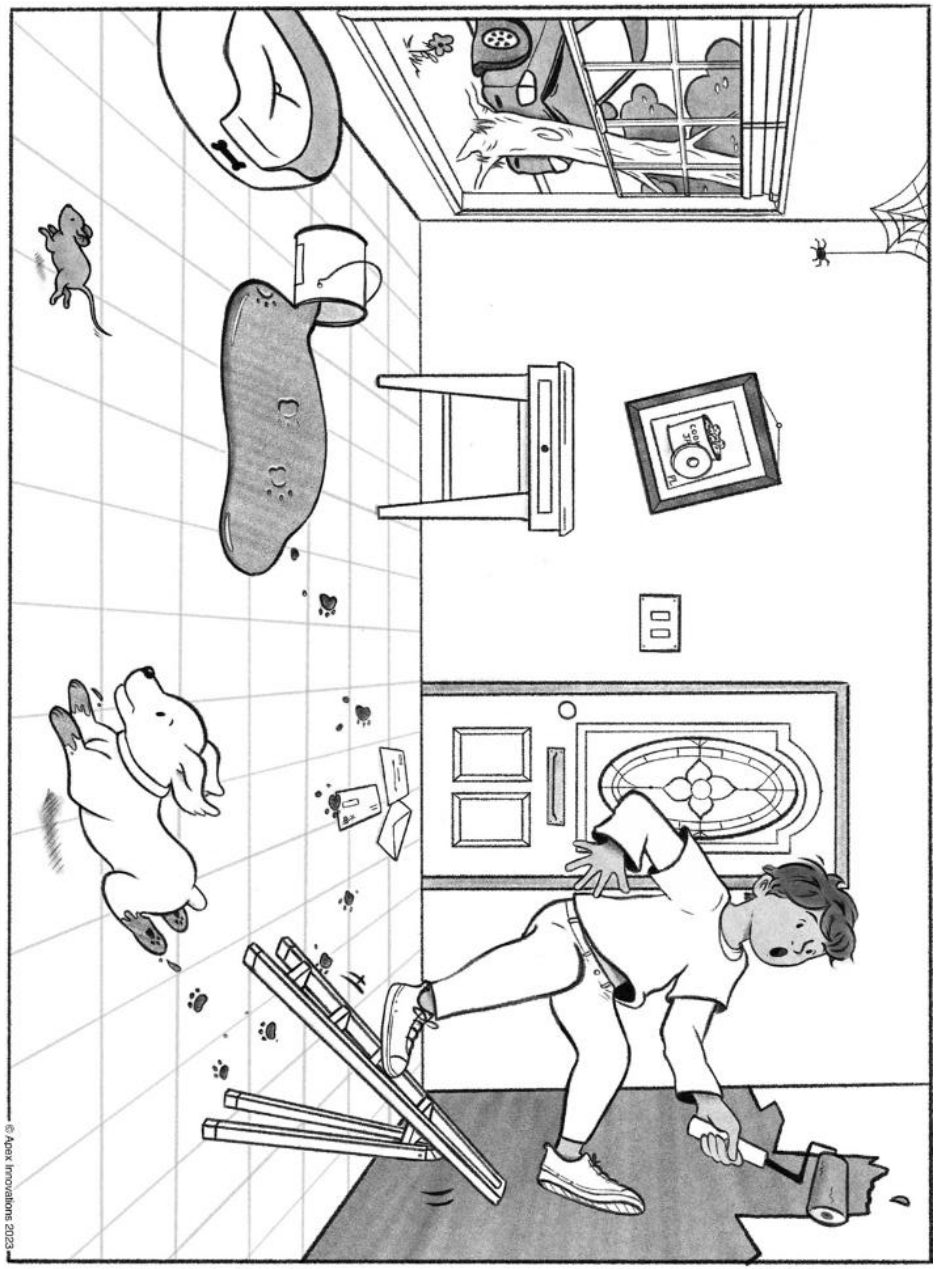
The only items that need to be tested are:

- Horizontal eye movements using the oculocephalic reflex (Doll's eye maneuver)
- Visual fields using Blink to threat.

		Score
1a. Level of Consciousness:	**3 = Coma** (does not open eyes to verbal or noxious stimuli)	3
1b. LOC Questions:	**2 = Coma**	2
1c. LOC Commands:	**2 = Coma**	2
2. Best Gaze: *Use the Doll's eye maneuver to test reflexive eye movements*	0 = Normal response to the oculocephalic reflex (OCR) 1 = Gaze palsy that can be overcome by the OCR 2 = Forced deviation that cannot be overcome by OCR	____
3. Visual fields: *Tested by blink to threat*	0 = Blinks to threat bilaterally 1 = Blinks to threat in all but one quadrant 2 = Blinks to threat on one side, but not the other 3 = Does not blink to threat bilaterally	____
4. Facial Palsy:	**3 = Coma**	3
5. Motor Arm:	**4 = No movement or coma** UN = Amputation or joint fusion, explain:	L: 4 R: 4
6. Motor Leg:	**4 = No movement or coma** UN = Amputation or joint fusion, explain:	L: 4 R: 4
7. Limb Ataxia:	**0 = Coma (because ataxia cannot be demonstrated)**	0
8. Sensory:	**2 = Coma**	2
9. Best Language:	**3 = Coma**	3
10. Dysarthria:	**Coma = 2** UN = Intubated	2 or UN
11. Extinction and Inattention (formerly Neglect):	**2 = Coma**	2
TOTAL		_____



New Picture Stimuli for the NIH Stroke Scale: A Validation Study. *Stroke*. 55 (2) 2024; 443-451 *(The purpose of revising the NIHSS is to introduce new stimuli developed for international use of the NIHSS and introduce less Western mid-century affluent White suburban bias into the score)*



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

NIH Stroke Scale – Aphasic Patient

See tips under each item

		Score
1a. Level of Consciousness: ***Tip:*** *Most patients who are aphasic due to stroke are alert. Patients who are confused due to encephalopathy are arousable or obtunded.*	0 = Alert (eyes open spontaneously) 1 = Arousable (requires minor stimulation to obey, answer, or respond) 2 = Obtunded (requires repeated stimulation to attend) 3 = Coma (responds only with reflex motor or autonomic effects or totally unresponsive)	_____
1b. LOC Questions: *Ask the month and pts age. The aphasic patient will usually score 2 on this item.*	0 = Answers both questions correctly 1 = Answers one question correctly. 2 = Answers neither question correctly.	_____
1c. LOC Commands: *It is okay to* ***pantomime*** *the commands for the NIHSS*	0 = Performs both tasks correctly 1 = Performs one task correctly 2 = Performs neither task correctly.	_____
2. Best Gaze: *If pt cannot follow commands to track your finger, try your* ***face****. Then use the* ***Doll's eye maneuver****.*	0 = Intact horizontal eye movements 1 = Gaze palsy that can be overcome by voluntary or reflexive eye movement. 2 = Forced deviation that cannot be overcome by voluntary or reflexive eye movement	_____
3. Visual fields: *Tested by* ***blink to threat***	0 = Blinks to threat bilaterally 1 = Blinks to threat in all but one quadrant 2 = Blinks to threat on one side, but not the other 3 = Does not blink to threat bilaterally	_____
4. Facial Palsy: *Score symmetry of* ***grimace to noxious stimuli***	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 (upper and lower face)	_____
5. Motor Arm: *Place the patient's arm in the correct position (extended, palms down) and use* ***visual cues*** *and* ***pantomime*** *to encourage the patient to keep the limb elevated.*	0 = No drift x 10 sec 1 = Drifts, but does not touch bed x 10 sec 2 = Drifts down to bed in less than or equal to 10 sec, but has some effort against gravity 3 = No effort against gravity; arm falls to bed immediately 4 = No movement **(do not score movement with noxious stim)** UN = Amputation or joint fusion, explain:	LEFT _____ RIGHT _____
6. Motor Leg: *Place the patient's leg in the correct position (extended, 30 degrees off the bed) and use* ***visual cues*** *and* ***pantomime*** *to encourage the patient to keep the limb elevated.* ***Do not score the initial dip when you let go of the leg.***	0 = No drift x 5 sec 1 = Drifts, but does not touch bed x 5 sec 2 = Drifts to bed in less than or equal to 5 sec, but has some effort against gravity 3 = No effort against gravity; leg falls to bed immediately 4 = No movement **(do not score movement with noxious stim)** UN = Amputation or joint fusion, explain:	LEFT _____ RIGHT _____
7. Limb Ataxia: ***Pantomime*** *finger-nose-finger and heel-shin tests are tested bilaterally.* ***Ataxia is scored only if present out of proportion to weakness.***	0 = Absent. **Ataxia is absent in the patient who cannot understand or is paralyzed.** 1 = Present in one limb 2 = Present in two limbs UN = Amputation or joint fusion, explain:	_____
8. Sensory: *Test sensation by looking for* ***grimace*** *and* ***withdrawal to noxious stimuli.***	0 = Patient grimaces or withdraws with noxious stimuli to all 4 limbs 1 = Patient does not withdraw as much or react as strongly on one side vs. the other 2 = Patient does not grimace or withdraw at all on one side or both sides	_____
9. Best Language:	1 = Some obvious loss of fluency or comprehension, without significant limitation on ideas expressed or form of expression 2 = All communication is through fragmentary expression, the range of information that can be exchanged is limited 3 = No usable speech or auditory comprehension.	_____
10. Dysarthria: *The clarity of articulation of spontaneous speech can be rated even in patients with aphasia.*	0 = Normal 1 = Patient slurs at least some words and, at worst, can be understood with some difficulty 2 = The patient's speech is so slurred as to be unintelligible or is mute/anarthric.	_____
11. Extinction and Inattention (formerly Neglect): *Score only if present.* ***If the patient has aphasia but does appear to attend to both sides, the score is normal.***	0 = No abnormality detected. 1 = Visual, tactile, auditory, spatial, or personal inattention 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.	_____
TOTAL		_____

NIH Stroke Scale – Intubated but Not Sedated (able to follow commands)

See tips under each item

		Score
1a. Level of Consciousness: *Alert pt using verbal, and if necessary, noxious stimuli*	0 = Alert (eyes open spontaneously) 1 = Arousable (requires minor stimulation to obey, answer, or respond) 2 = Obtunded (requires repeated stimulation to attend)	_____
1b. LOC Questions:	1 = Intubation (by default, intubation scores a 1)	1
1c. LOC Commands: *Ask or pantomime 2 commands, i.e. close the eyes and make a fist.*	0 = Performs both tasks correctly 1 = Performs one task correctly 2 = Performs neither task correctly	_____
2. Best Gaze: *Horizontal voluntary (tracking your hand) or reflexive (Doll's maneuver) eye movements are tested.*	0 = Normal; Congenital strabismus, vertical gaze palsy, nystagmus, skew deviation. 1 = Gaze palsy that can be overcome by voluntary or reflexive (Doll's maneuver) eye movement. Isolated oculomotor nerve palsy. 2 = Forced deviation that cannot be overcome by voluntary or reflexive eye movement.	_____
3. Visual fields: *Tested* ***finger wiggling*** *in each of the 4 quadrants and have patient point to the hand that moves. If pt unable to do this, test with* ***blink to threat*** *(BTT)*	0 = Patient BTT or points to fingers in all quadrants 1 = Patient does not BTT or see fingers in one quadrant 2 = Patient does not BTT or see fingers in one hemifield 3 = Patient does not BTT or see fingers bilaterally	_____
4. Facial Palsy: *Score symmetry of* ***grimace in response to noxious stimuli*** *in the poorly responsive or non-comprehending patient.* **Can be difficult to discern in the intubated pt, but do your best.**	0 = Normal symmetrical movements or unable to detect a facial palsy 1 = Minor paralysis (unlikely to be able to detect in an intubated pt) 2 = Obvious lower facial paralysis (may be able to detect in an intubated pt) 3 = Complete paralysis of one or both sides (**upper and lower facial palsy – either peripheral CN VII nerve injury or brainstem stroke**).	_____
5. Motor Arm: *The limb is placed extend the arms (****palms down****) at 45 degrees and observed for drift.*	0 = No drift; arm held at 45 degrees x 10 sec 1 = Drifts, but does not touch bed x 10 sec 2 = Drifts down to bed in less than or equal to 10 sec, but has some effort against gravity 3 = No effort against gravity; arm falls to bed immediately 4 = No movement or coma UN = Amputation or joint fusion, explain:	LEFT _____ RIGHT _____
6. Motor Leg: *The leg is placed at 30 degrees and observed for drift. An initial dip when you release the leg is not scored.*	0 = No drift; leg held at 30 degrees x 5 sec 1 = Drifts, but does not touch bed x 5 sec 2 = Drifts to bed in less than or equal to 5 sec, but has some effort against gravity 3 = No effort against gravity; leg falls to bed immediately 4 = No movement or coma UN = Amputation or joint fusion, explain:	LEFT _____ RIGHT _____
7. Limb Ataxia: *Finger-nose-finger and heel-shin tests are tested bilaterally****. Ataxia is scored only if present out of proportion to weakness.***	0 = Absent. **Ataxia is absent in the patient who cannot understand or is unable to perform this test.** 1 = Present in one limb 2 = Present in two limbs UN = Amputation or joint fusion, explain:	_____
8. Sensory: *Sensation to pinprick/light touch and have pt nod yes/no or point to the limb to indicate if and where they feel the sensation.*	0 = Normal sensation 1 = Decreased sensation; pinprick feels less sharp on the affected side. Neglect = 1. 2 = Absent sensation or bilateral sensory loss. ***Do not score sensory loss due to cause other than stroke, i.e. neuropathy.***	_____
9. Best Language: Assess comprehension by asking pt to follow commands ***Assess fluency and naming with writing***	0 = Pt follows commands reliably and writes correct answers to questions 1 = Mild-to-moderate aphasia; some obvious loss facility of comprehension, and some errors in writing but able to communicate somewhat 2 = Severe aphasia; limited ability to follow command or write complete sentences. 3 = Unable to follow any commands or write words	_____
10. Dysarthria:	**UN = Intubated**	UN
11. Extinction and Inattention (formerly Neglect): ***Score only if present****. If you are unable to tell that the pt has neglect, score 0 on this item.*	0 = No abnormality detected. 1 = Visual, tactile, auditory, spatial, or personal inattention 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.	_____
TOTAL		_____