

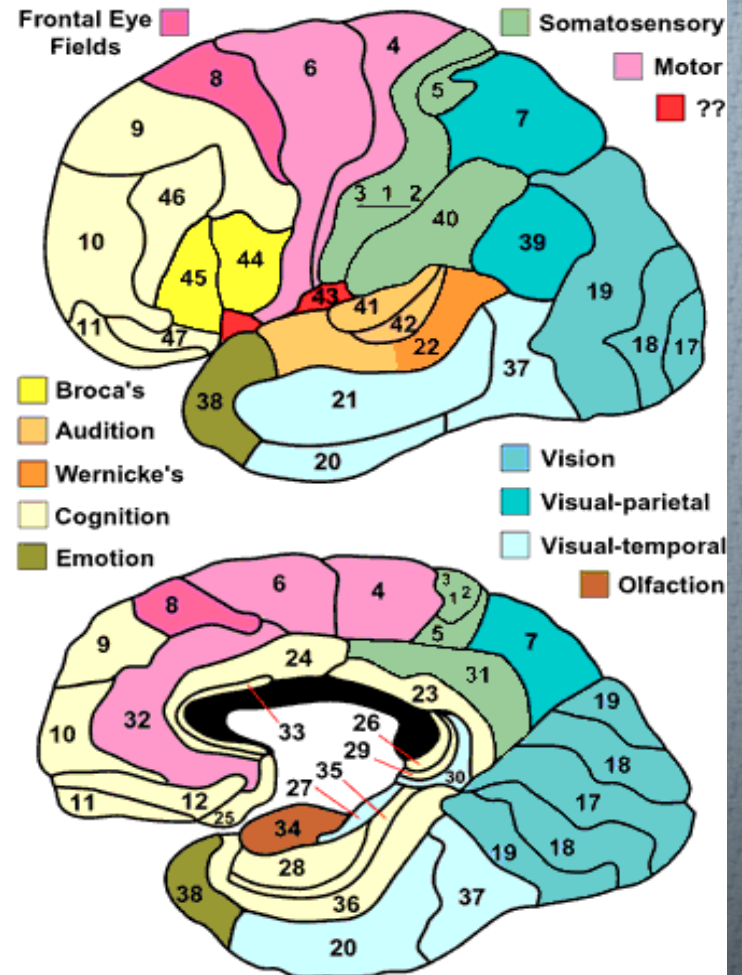
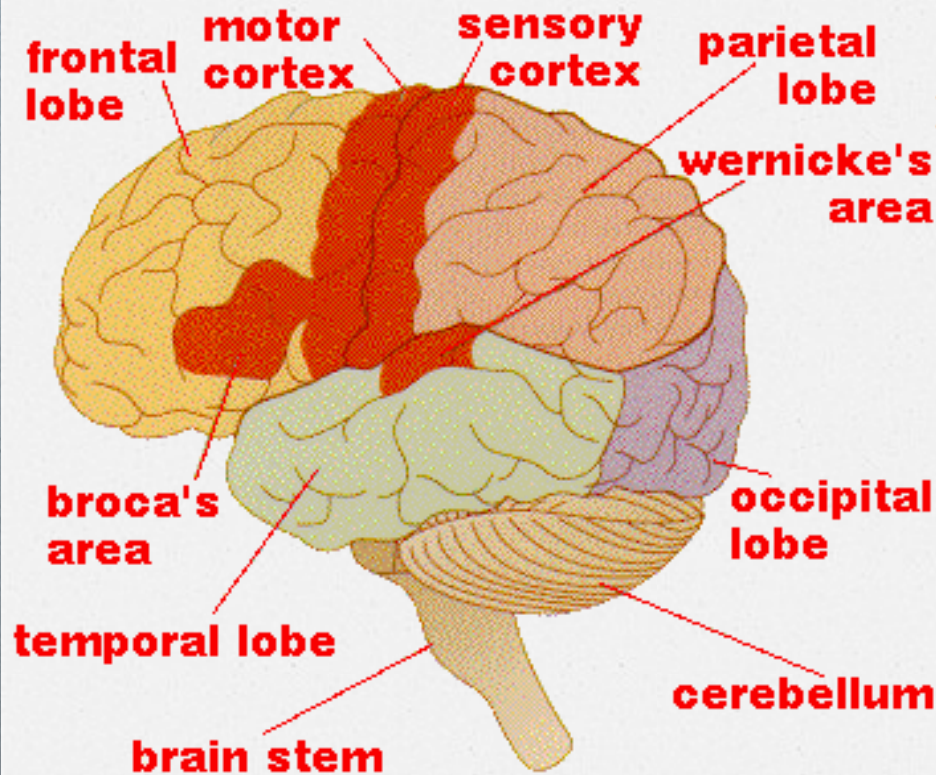


# NIHSS & Localization

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Consider *where* you are testing with  
*what* you are testing.





## Left hemisphere functions

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analytical

verbal

logical

numerical computation  
(**exact** calculation, numerical comparison, estimation)

language: grammar/  
vocabulary, literal

## Right hemisphere functions

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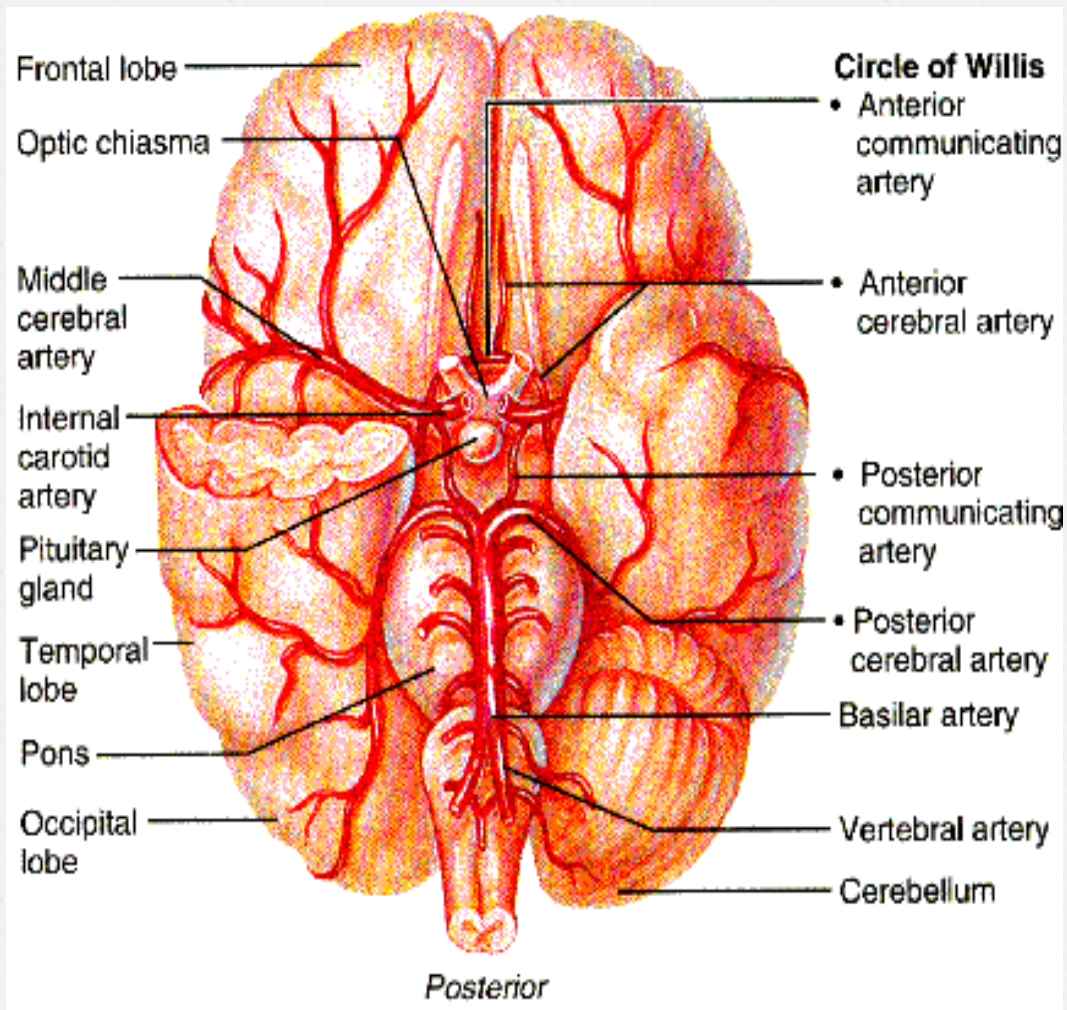
holistic

prosodic

intuitive

numerical computation  
(**approximate** calculation, numerical comparison, estimation)

language:  
intonation/accenuation,  
prosody, pragmatic, contextual





# National Institute of Health (NIH) stroke scale (NIHSS)

- Standardized method to measure the level of impairment caused by a stroke
- Quantitative
- Systematic
- Allows for the objective comparison of efficacy across different stroke treatments and rehabilitation interventions

# Scores

- 0 – 4 = mild stroke
  - 5 – 15 = moderate stroke
  - 15 – 20 = moderate-to-severe stroke
  - 21 – 42 = severe stroke
- 
- A maximal score of 42 represents the most severe and devastating stroke.
  - 0- Do not assume No Stroke

# 1a

## Level of Consciousness

- 0 = alert, keenly responsive
- 1 = not alert, but arousable by minor stimulation to obey, answer, or respond
- 2 = not alert, requires repeat stimulation to attend, or is obtunded and requires strong or painful stimulation to make movements
- 3 = coma, responds only with reflex motor or autonomic effects or totally unresponsive, flaccid, and areflexic



# Strokes affecting LOC

- o Reticular activating system
  - o Basilar artery occlusions
  - o Strokes that affect the brainstem
- o Bilateral cortical dysfunction
  - o New stroke to one hemisphere if old stroke to other hemisphere
  - o Stroke mimic- seizure, overdose, etc.
- o Hemorrhagic strokes
  - o ICP elevation or obstructive hydrocephalus



# 1b

## LOC Questions

- o Current month of the year
  - o Patient's age
- 
- o 0 = answers both questions correctly
  - o 1 = answers one question correctly
  - o 2 = answers neither question correctly  
(if intubated, automatically score a 1)

# Inability to answer orientation questions

- o Frontal strokes affecting memory
- o Aphasia- Broca or Wernicke
- o Non stroke issues such as underlying dementia or delirium



1c

## LOC Commands

- o Open and close the eyes
- o Make a fist and then open the nonparetic hand
- o 0 = follows both commands
- o 1 = follows one command
- o 2 = follows neither command

# Unable to follow commands?

- o Unable to understand the instruction-  
Wernicke's
- o Profound inattention affecting ability to  
complete task
- o Unable to execute the movement
  - o Motor deficit
  - o Apraxia



## 2-Best gaze

only assess horizontal gaze



- o 0 = normal
- o 1 = partial gaze palsy
  - o Patient is unable to move one or both eyes fully in both directions
  - o Able to overcome with oculoccephalic maneuver
- o 2 = forced gaze deviation
  - o Patient has conjugate deviation of eyes in one direction
  - o Unable to overcome with oculoccephalic maneuver

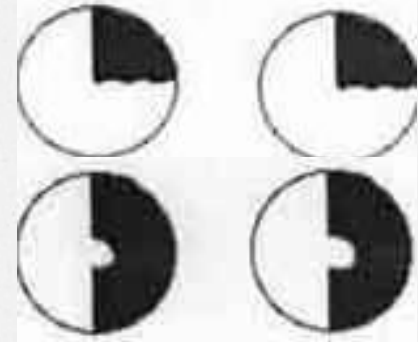
# Gaze effects

- o MCA strokes. Eyes will go toward the stroke lesion therefore looking away from affected side
- o PCA strokes. Preference due to a visual field cut or neglect.
- o “Wrong way gaze”
  - o When eyes are deviated to the same side that is weak
    - o Strokes of midbrain or pons
    - o Seizure - eyes will go away from lesion



# 3-Visual field testing

- 0 = normal
- 1 = partial visual field cut
- 2 = complete hemifield cut
- 3 = bilateral visual field cut or blind



- ✓ Ideally, one eye at a time (other covered) and counting fingers in each quadrant.
- ✓ In nonaphasic patient, acceptable to have them point to fingers wiggling in each quadrant.
- ✓ In aphasic or stuporous patient, acceptable to elicit blink to threat in each quadrant with eyelids held open.
- ✓ If blind in one eye, only test sighted eye

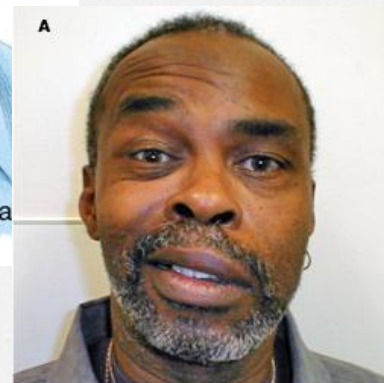
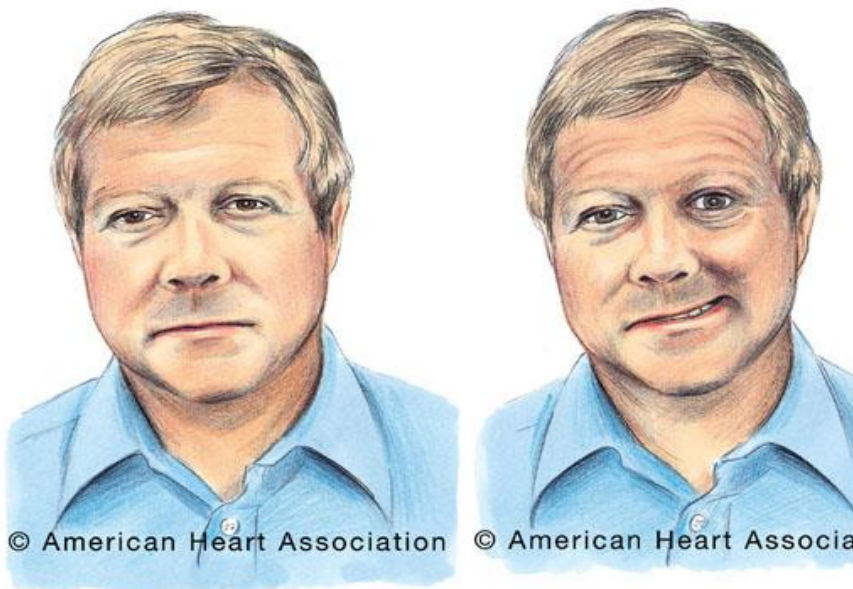
# Strokes affecting visual fields

- o Middle Cerebral Artery (MCA)
- o Posterior Cerebral Artery (PCA)



# 4-Facial paresis

- 0 = normal, symmetrical
- 1 = minor paralysis, nasolabial fold flattening, asymmetry of smile
- 2 = partial paralysis, total or near total paralysis of the lower face
- 3 = total or near total paralysis of the upper and lower face





# Strokes causing facial droop sparing the forehead

- Poorly localizing
  - Cortical MCA
  - Subcortical MCA
  - Subcortical PCA
  - Subcortical brainstem (basilar)
  - Pontomedullary (generally get a nuclear palsy with involvement in forehead)

# 5-8 Motor function

- o 5 Right Arm Motor Function
- o 6 Left Arm Motor Function
  - o Test upper extremities for 10 seconds
  - o At 45 degrees supine
- o 7 Right Leg Motor Function
- o 8 Left Leg Motor Function
  - o Test lower extremities for 5 seconds
  - o At 30 degrees supine



# Motor scores

- 0 = no drift
- 1 = any drift
- 2 = some antigravity
- 3 = some movement, but not antigravity
- 4 = no movement
- X = untestable, amputation, joint fusion or necessary restraint prevents testing

# Stroke affecting motor function

- ◊ MCA- more commonly face and arm contralateral
- ◊ ACA- more commonly leg contralateral
- ◊ Subcortical
- ◊ Basilar can cause quadriplegia or tetraplegia



# 9-Ataxia

- o Test finger-to-nose
- o Test heel-to-shin
- o Test with eyes open
  
- o 0 = no ataxia, ataxia is scored only if out of proportion to the weakness
- o 1 = ataxia in one limb
- o 2 = ataxia in two limbs
- o X = untestable, amputation, or joint fusion

# Stroke causing ataxia

- Cerebellar
- PCA
- Brainstem



# 10- Sensory

- o Test pin prick- comparing left to right. Test face, arms, legs
  - o Do not test the patient's hands
- o 0 = normal
- o 1 = partial (mild-to-moderate) sensory loss
- o 2 = dense (severe or total) sensory loss

# Stroke affecting sensation

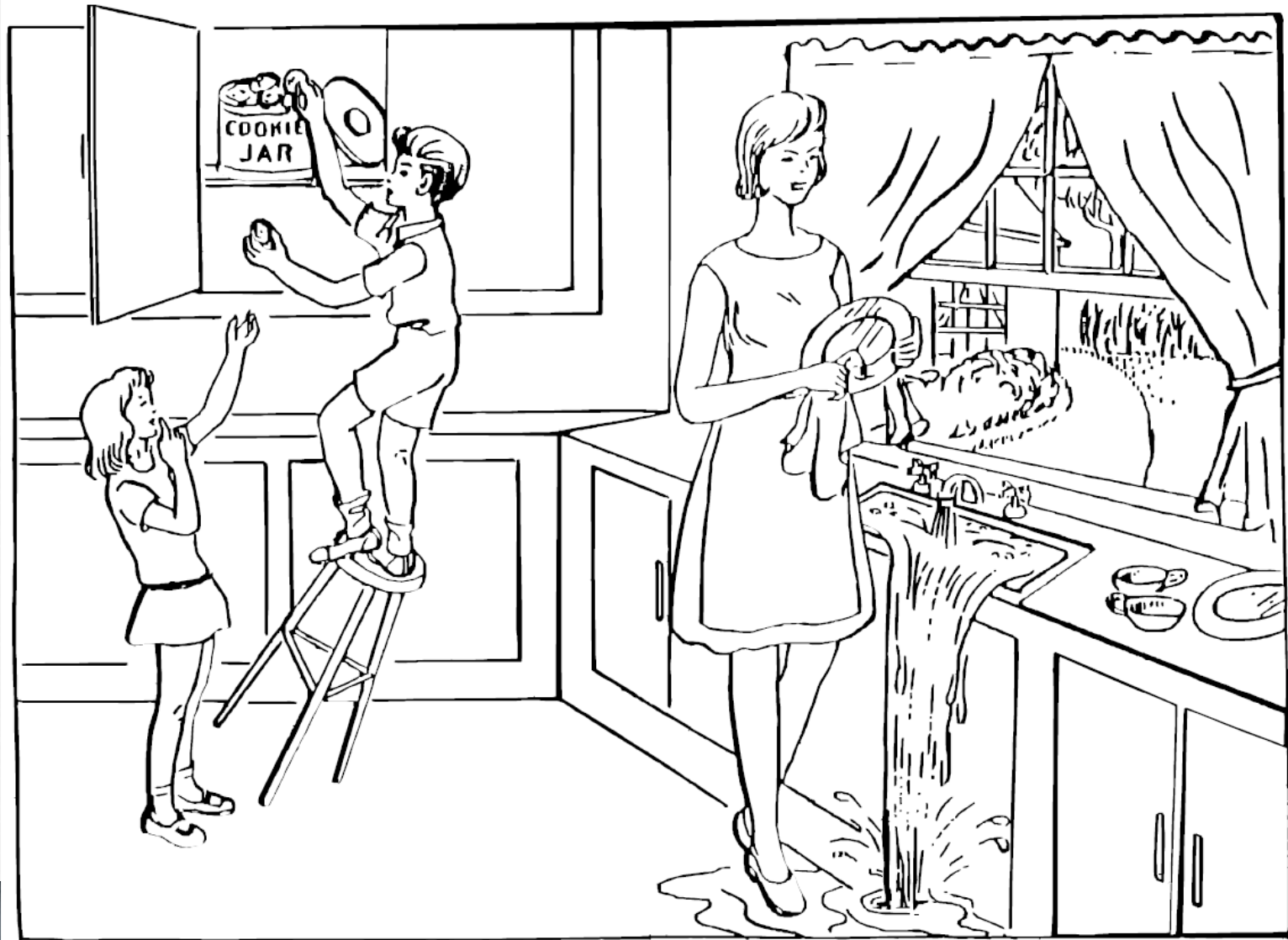
- o MCA
- o ACA
- o Subcortical- Small vessel
- o Crossed sensory (face on one side and arm + leg on the opposite side) = highly localizing to the medulla (vertebral artery perforator)



# 11-Best language/Aphasia

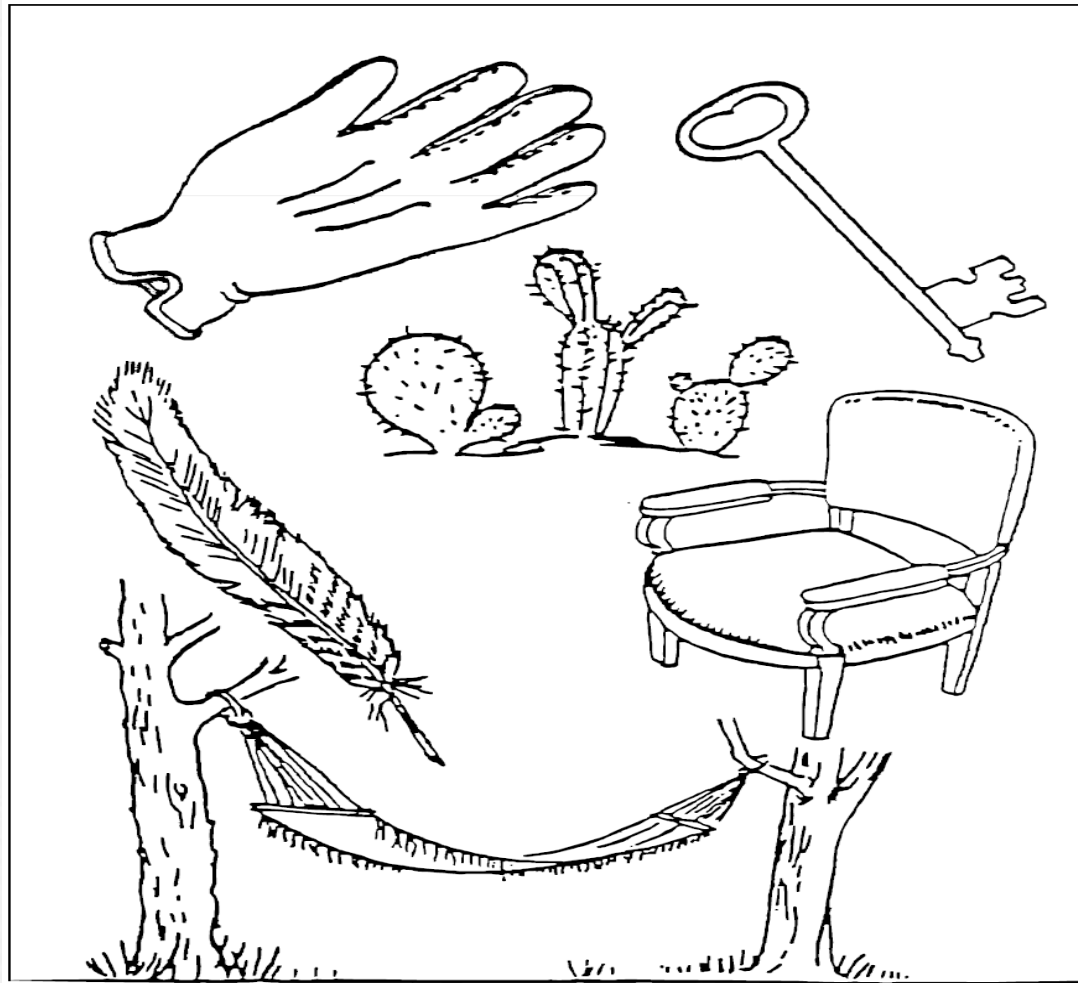
- o Test fluency, naming, repetition, comprehension, and reading (+/- writing)
- o 0 = normal
- o 1 = mild-to-moderate
- o 2 = severe
- o 3 = mute/global
- o A mute patient who is able to follow commands scores a 2.

# Describe this picture- fluency





# Naming objects



Ask patient to repeat words

**MAMA**

**TIP – TOP**

**FIFTY – FIFTY**

**THANKS**

**HUCKLEBERRY**

**BASEBALL PLAYER**



# Ask to read the sentences

**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.**

# Strokes affecting language

- Left MCA
- Left ACA
- Left PCA – “MCA mimic”
- May also score points on language section due to confusion, inattentiveness, alteration in cognition.
- May have trouble reading if visual field cut or visual neglect



# 12- Dysarthria

- o 0 = normal
- o 1 = mild-to-moderate
- o 2 = severe/unintelligible
- o X = untestable (patient is intubated or other mechanical barrier)
- o If patient is mute, score 2 for dysarthria

Ask patient to repeat words

**MAMA**

**TIP – TOP**

**FIFTY – FIFTY**

**THANKS**

**HUCKLEBERRY**

**BASEBALL PLAYER**



# Stroke affecting quality of speech

Poorly localizing

- o MCA

- o ACA

- o Basilar

- o Subcortical

# 13- Neglect

- o 0 = none
- o 1 = partial (only neglect of one modality)
- o 2 = complete (neglect of more than one modality)
- o Test for visual neglect and sensory neglect using double simultaneous stimulation
  - o Patient may have hemibody and motor neglect



# Stroke causing neglect

- o Almost always a right hemisphere phenomenon
- o MCA – hemibody neglect, hemisensory neglect, hemiauditory neglect
- o PCA – hemisensory neglect, visual field neglect
- o Patient may have no awareness of their deficits. As a result, may try to get up off of stretcher when paretic on one side. May have arm stuck through bed rail in unnatural position without awareness. “I fell down and couldn’t get up,” not understanding why.

# Coma in Stroke- pts scoring 3 on item 1a (LOC)

A patient suspected to be in coma should be stimulated by rubbing on the chest or by using a painful stimulus. A 3 on 1a should only be scored if the patient makes no movement (other than reflexive posturing) in response to the noxious stimuli. Pts who appear to be in coma & who score less than 3 must be tested on all NIHSS items.

After scoring a **3** on Item **1a**, the remaining items should be scored as:

- ❖ Item **1b** (LOC questions)- Score **2**
- ❖ Item **2** (best Gaze)- patient can be in coma & have gaze palsy that can be overcome by moving the head. Thus, the oculoccephalic maneuver must be done & the patient scored.
- ❖ Item **3** (Visual)- Test using bilateral threat
- ❖ Item **4** (Facial Palsy)- Score **3**
- ❖ Items **5 & 8**- (Motor)- This item is interpreted as the voluntarily ability to attain a posture. Score **4** for all.
- ❖ Item **9** (Limb ataxia)- Scored only if present, out of proportion to weakness. Otherwise, score **0**.
- ❖ Item **10** (Sensory)- Score **2** (arbitrary)
- ❖ Item **11** (Aphasia)- Score **3**
- ❖ Item **12** (Dysarthria)- Score **2** whether intubated or not.
- ❖ Item **13** (Extinction & Inattention)- Coma implies loss of all cognitive abilities. Score **2**



# NIHSS Limitations

- Affected by alertness, awareness and cooperation.
- The NIHSS is highly weighted toward deficits caused by anterior circulation strokes while deficits due to posterior circulation strokes receive fewer points.
- Within the anterior circulation, the scale underestimates the degree of right vs. left hemisphere injury.
- NIHSS performs unequally in the detection of stroke depending upon lesion location and it is, therefore, possible that some patients with persistent symptoms upon arrival to the emergency department (ED) and an NIHSS 0 still have an infarct.

# Symptoms not captured by NIHSS

- o Headache
- o Nausea
- o Dizziness
- o Truncal Ataxia
- o Hand or foot weakness without proximal limb involvement
- o Loss of sensation to hand
- o Memory loss
- o Loss of vision in one eye only (monocular)
- o Loss of vertical eye movements
- o Hoarseness



# In addition to NIHSS

- o Pupillary exam
- o Abnormal eye movements
- o Observe quality of gait and ability to sit up straight
- o Presence of hiccups
- o Quality of voice (hoarseness)
- o Strength testing/ presence of tone vs flaccidity



# Stroke Syndromes

# Left MCA

- o Unable to answer questions
  - o Due to aphasia
- o Unable to follow commands
  - o Due to aphasia
- o Left gaze preference
  - o Left frontal lobe dysfunction
- o Right visual field deficit
  - o Left optic radiations damage
- o Right sided hemiparesis (face/arm>leg)
  - o Left frontal cortex damage
- o Diminished sensation of the right arm
  - o Left parietal cortex damage
- o Inability to name, repeat or read
  - o Language center dysfunction

## NIHSS 22

### 1a - LOC

0 - Alert 1 - Drowsy 2 - Stupor 3 - Comatose

### 1b - LOC

0 - Both 1 - One 2 - Neither

### 1c - LOC Commands

0 - Both 1 - One 2 - Neither

### 2 - Best Gaze

0 - NL 1 - Partial 2 - Forced Gaze

### 3 - Visual Fields

0 - NL 1 - Partial 2 - Complete 3 - Bilateral

### 4 - Facial Paresis

0 - NL 1 - Minor 2 - Partial 3 - Complete

### 5 - 8 Motor

Key  
 0 - No Drift  
 1 - Drift  
 2 - Some Effort vs. Gravity  
 3 - No Effort vs. Gravity  
 4 - No Movement  
 x - Untestable

### 9 - Limb Ataxia

0 - Absent 1 - 1 Limb 2 - 2+ Limbs x - Untestable

### 10 - Sensory

0 - NL 1 - Partial 2 - Dense loss

### 11 - Best Language / Aphasia

0 - NL 1 - Mild / Mod 2 - Severe 3 - Mute

### 12 - Dysarthria

0 - NL 1 - Mild / Mod 2 - Severe x - Untestable

### 13 - Neglect / Inattention

0 - None 1 - Partial 2 - Complete



# Partial Left MCA

- o Unable to answer questions
  - o Left frontal lobe dysfunction
- o Able to follow commands
  - o Left temporal lobe spared
- o Left gaze preference
  - o Left frontal lobe dysfunction
- o Intact visual fields
  - o Left optic radiations spared
- o Right sided hemiparesis (face/arm>leg)
  - o Left frontal cortex damage
- o Sensation is normal
  - o Left parietal cortex spared
- o Inability to name, repeat or read
  - o Language center dysfunction

NIHSS **14**

## 1a - LOC

0 - Alert    1 - Drowsy    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    2 - Neither

## 1c - LOC Commands

0 - Both    1 - One    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    2 - Forced Gaze

## 3 - Visual Fields

0 - NL    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    2 - Partial    3 - Complete

## 5 - 8 Motor

\_\_\_ **4** \_\_\_ 5 - Right Arm

\_\_\_ **0** \_\_\_ 6 - Left Arm

\_\_\_ **2** \_\_\_ 7 - Right Leg

\_\_\_ **0** \_\_\_ 8 - Left Leg

## Key

0 - No Drift

1 - Drift

2 - Some Effort vs. Gravity

3 - No Effort vs. Gravity

4 - No Movement

x - Untestable

## 9 - Limb Ataxia

0 - Absent    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

0 - NL    1 - Partial    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    2 - Severe    3 - Mute

## 12 - Dysarthria

0 - NL    1 - Mild / Mod    2 - Severe    x - Untestable

## 13 - Neglect / Inattention

0 - None    1 - Partial    2 - Complete

# Right MCA

- o Drowsy
  - o Attention center damaged
- o Oriented
  - o Language intact
- o Follows commands
  - o Language intact
- o R gaze deviation
  - o Right frontal lobe dysfunction
- o Left visual field defect
  - o Right optic radiations damaged
- o L facial paresis & L hemiplegia
  - o Right frontal cortex damaged
- o No ataxia
- o L sided sensory loss
  - o Right sensory cortex damaged
- o No aphasia
- o Moderate dysarthria
- o Complete neglect
  - o Unawareness of deficit, hemibody neglect, visual neglect

NIHSS **18**

## 1a - LOC

0 - Alert    1 - Drowsy    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    2 - Neither

## 1c - LOC: Commands

0 - Both    1 - One    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    2 - Forced Gaze

## 3 - Visual Fields

0 - NL    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    2 - Partial    3 - Complete

## 5 - 8 Motor

\_\_\_\_ **0** \_\_\_\_ 5 - Right Arm    0 - No Drift  
 \_\_\_\_ **4** \_\_\_\_ 6 - Left Arm    1 - Drift  
 \_\_\_\_ **0** \_\_\_\_ 7 - Right Leg    2 - Some Effort vs. Gravity  
 \_\_\_\_ **3** \_\_\_\_ 8 - Left Leg    3 - No Effort vs. Gravity  
    4 - No Movement  
    x - Untestable

## Key

## 9 - Limb Ataxia

0 - Absent    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

0 - NL    1 - Partial    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    2 - Severe    3 - Mute

## 12 - Dysarthria

0 - NL    1 - Mild / Mod    2 - Severe    x - Untestable

## 13 - Neglect / Inattention

0 - None    1 - Partial    2 - Complete



# Left ACA

- o Alert
- o May answer questions
- o Follows commands
- o Normal gaze
- o Normal visual fields
- o Minor right facial paresis
- o Drift in RUE
- o No antigravity in RLE
- o No ataxia
- o Mild sensory loss RLE
- o Mild expressive aphasia with echolalia
- o No dysarthria
- o No neglect

NIHSS **8**

## 1a - LOC

0 - Alert    1 - Drowsy    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    2 - Neither

## 1c - LOC Commands

0 - Both    1 - One    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    2 - Forced Gaze

## 3 - Visual Fields

0 - NL    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    2 - Partial    3 - Complete

## 5 - 8 Motor

## Key

\_\_\_ **1** \_\_\_ 5 - Right Arm

0 - No Drift

\_\_\_ **0** \_\_\_ 6 - Left Arm

1 - Drift

\_\_\_ **3** \_\_\_ 7 - Right Leg

2 - Some Effort vs. Gravity

\_\_\_ **0** \_\_\_ 8 - Left Leg

3 - No Effort vs. Gravity

4 - No Movement

x - Untestable

## 9 - Limb Ataxia

0 - Absent    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

0 - NL    1 - Partial    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    2 - Severe    3 - Mute

## 12 - Dysarthria

0 - NL    1 - Mild / Mod    2 - Severe    x - Untestable

## 13 - Neglect / Inattention

0 - None    1 - Partial    2 - Complete



# Left PCA

- o Alert
- o Able to answer questions
- o Follows commands
- o Left gaze preference
- o R visual field cut
- o Minor right facial paresis
- o Drift in RUE
- o Drift in RLE
- o No ataxia
- o Mild sensory loss R side
- o Reduced fluency and naming
- o Able to write, but not read
- o Mild dysarthria
- o No neglect

## NIHSS 9

### 1a - LOC

0 - Alert 1 - Drowsy 2 - Stupor 3 - Comatose

### 1b - LOC

0 - Both 1 - One 2 - Neither

### 1c - LOC Commands

0 - Both 1 - One 2 - Neither

### 2 - Best Gaze

0 - NL 1 - Partial 2 - Forced Gaze

### 3 - Visual Fields

0 - NL 1 - Partial 2 - Complete 3 - Bilateral

### 4 - Facial Paresis

0 - NL 1 - Minor 2 - Partial 3 - Complete

### 5 - 8 Motor

1 5 - Right Arm

0 6 - Left Arm

1 7 - Right Leg

0 8 - Left Leg

### Key

0 - No Drift

1 - Drift

2 - Some Effort vs. Gravity

3 - No Effort vs. Gravity

4 - No Movement

x - Untestable

### 9 - Limb Ataxia

0 - Absent 1 - 1 Limb 2 - 2+ Limbs x - Untestable

### 10 - Sensory

0 - NL 1 - Partial 2 - Dense loss

### 11 - Best Language / Aphasia

0 - NL 1 - Mild / Mod 2 - Severe 3 - Mute

### 12 - Dysarthria

0 - NL 1 - Mild / Mod 2 - Severe x - Untestable

### 13 - Neglect / Inattention

0 - None 1 - Partial 2 - Complete

# Right cerebellum

- o Alert
- o Able to answer questions
- o Follows commands
- o Normal gaze
- o Normal visual fields
- o No facial weakness
- o RUE and RLE "bobble"
- o Ataxia involving RUE and RLE
- o Mild sensory loss R side
- o Normal language
- o Mild dysarthria
- o No neglect

NIHSS **6**

## 1a - LOC

0 - Alert    1 - Drowsy    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    2 - Neither

## 1c - LOC Commands

0 - Both    1 - One    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    2 - Forced Gaze

## 3 - Visual Fields

0 - NL    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    2 - Partial    3 - Complete

## 5 - 8 Motor

1    5 - Right Arm

0    6 - Left Arm

1    7 - Right Leg

0    8 - Left Leg

## Key

0 - No Drift

1 - Drift

2 - Some Effort vs. Gravity

3 - No Effort vs. Gravity

4 - No Movement

x - Untestable

## 9 - Limb Ataxia

0 - Absent    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

0 - NL    1 - Partial    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    2 - Severe    3 - Mute

## 12 - Dysarthria

0 - NL    1 - Mild / Mod    2 - Severe    x - Untestable

## 13 - Neglect / Inattention

0 - None    1 - Partial    2 - Complete



# Mid-basilar occlusion

- o Drowsy
- o Unable to answer questions
- o Follows command for blinking, but unable to control other movements
- o Dysconjugate gaze with only vertical movements intact
- o Normal visual fields
- o No facial movement
- o No antigravity in any limb
- o Unable to test ataxia
- o No sensory loss
- o Nonverbal
- o Anarthric scored as severe
- o No neglect

NIHSS **25**

## 1a - LOC

0 - Alert    **1 - Drowsy**    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    **2 - Neither**

## 1c - LOC Commands

0 - Both    **1 - One**    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    **2 - Forced Gaze**

## 3 - Visual Fields

**0 - NL**    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    2 - Partial    **3 - Complete**

## 5 - 8 Motor

**3** 5 - Right Arm

**3** 6 - Left Arm

**3** 7 - Right Leg

**3** 8 - Left Leg

## Key

0 - No Drift

1 - Drift

2 - Some Effort vs. Gravity

3 - No Effort vs. Gravity

4 - No Movement

x - Untestable

## 9 - Limb Ataxia

**0 - Absent**    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

**0 - NL**    1 - Partial    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    **2 - Severe**    3 - Mute

## 12 - Dysarthria

0 - NL    1 - Mild / Mod    **2 - Severe**    x - Untestable

## 13 - Neglect / Inattention

**0 - None**    1 - Partial    2 - Complete

# Lacunar stroke syndromes

- ◊ Pure Motor
- ◊ Pure Sensory
- ◊ Sensorimotor
- ◊ Ataxic Hemiparesis
- ◊ Dysarthria/Clumsy hand



# Lacunar stroke on R

- o Alert
- o Able to answer questions
- o Able to follow commands
- o Normal gaze
- o Normal visual fields
- o L facial weakness
- o Left hemiparesis
- o Left ataxia, but not out of proportion to weakness
- o Mild sensory loss
- o Normal language
- o Mild dysarthria
- o No neglect

NIHSS **8**

## 1a - LOC

0 - Alert    1 - Drowsy    2 - Stupor    3 - Comatose

## 1b - LOC

0 - Both    1 - One    2 - Neither

## 1c - LOC Commands

0 - Both    1 - One    2 - Neither

## 2 - Best Gaze

0 - NL    1 - Partial    2 - Forced Gaze

## 3 - Visual Fields

0 - NL    1 - Partial    2 - Complete    3 - Bilateral

## 4 - Facial Paresis

0 - NL    1 - Minor    **2 - Partial**    3 - Complete

## 5 - 8 Motor

## Key

\_\_\_ **0** \_\_\_ 5 - Right Arm    0 - No Drift  
 \_\_\_ **2** \_\_\_ 6 - Left Arm    1 - Drift  
 \_\_\_ **0** \_\_\_ 7 - Right Leg    2 - Some Effort vs. Gravity  
 \_\_\_ **2** \_\_\_ 8 - Left Leg    3 - No Effort vs. Gravity  
                                  4 - No Movement  
                                  x - Untestable

## 9 - Limb Ataxia

0 - Absent    1 - 1 Limb    2 - 2+ Limbs    x - Untestable

## 10 - Sensory

0 - NL    **1 - Partial**    2 - Dense loss

## 11 - Best Language / Aphasia

0 - NL    1 - Mild / Mod    2 - Severe    3 - Mute

## 12 - Dysarthria

0 - NL    **1 - Mild / Mod**    2 - Severe    x - Untestable

## 13 - Neglect / Inattention

**0 - None**    **1 - Partial**    2 - Complete



Questions?