

The **R**apid vascular **U**ltrasound evaluation and serial **N**eurological assessment in minor stroke and rapidly improving stroke symptoms, (**RUN**), Study.

CASE REPORT FORM

Study Principal Investigator:

Steven R. Levine, MD, FAHA, FAAN
Professor of Neurology & Emergency
Medicine
Department of Neurology and Stroke
Center
SUNY Downstate Medical Center
450 Clarkson Avenue, Box 1213
Brooklyn, NY 11203-2098
Phone: (+1) 718-270-3188
Fax: (+1) 718-221-5761
steven.levine@downstate.edu

Study Co-Principal Investigator:

Clotilde Balucani, MD PhD
Research Instructor
Department of Neurology and Stroke
Center
SUNY Downstate Medical Center
450 Clarkson Avenue Room B-309
Brooklyn 11203-2098 NY
Phone: (+1) 718-221-5749
Mobile: (+1) 347-966-9070
Clotilde.Balucani@downstate.edu



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- Race/Ethnicity	
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Date of qualifying event:

d d m m y y y y

Patient-ID:

(SU/KC) Initials 0 0 1
First/Last

Full name:

Phone number:.....

Address:.....
.....

Date of birth:

d d m m y y y y

Gender: Male Female

Race/Ethnicity: White African/American Asian Hispanic Other

Symptom onset time (24 hours):

Admission to ED time(24 hours):

Best estimates of time from symptoms onset to ED admission:
minutes



INCLUSION CRITERIA:

- Age 18 years or older YES NO
- Clinical syndrome suggestive of acute ischemic stroke YES NO
- Time from onset of symptoms less than 4.5 hours YES NO
- Head CT scan negative for ICH
(or other conditions responsible for neurological deficit) YES NO
- Able to give consent or surrogate consent YES NO
- Life expectation more than 6 months YES NO

TYPE OF SYMPTOMS AT PRESENTATION:

- Weakness YES NO
- Visual Change YES NO
- Dizziness/ Vertigo YES NO
- Sensory change YES NO
- Aphasia YES NO
- Dysarthria YES NO
- Facial drop YES NO



HEAD CT SCAN FINDINGS

Qualifying event hemispheric side: Right Left Both

I. Non-ischemic stroke lesion:

A: Hemorrhagic: YES NO

1. SDH 2. EDH 3. SAH

4. Intracerebral hemorrhage : YES NO

i. Cortical ii. Subcortical iii. Cerebellar iv. Brainstem

B: Non-hemorrhagic: YES NO

1. Tumor 2. Abscess

II. Early Ischemic Stroke Signs:

A. Hyperdense Artery Sign YES NO

B. Loss of Insular Ribbon ("Insular ribbon sign") YES NO

C. Loss of cortical gray-white differentiation YES NO

D. Mass effect YES NO

III. Non acute Ischemic Signs: YES NO

1. Old ischemic lesions 2. Silent Infarctions 3. Leukoaraiosis/WML

Neurovascular Imaging (if any please collect the CD/DVD with this form):

CTA: YES NO

MRI: YES NO



MEDICAL HYSTORY/ VASCULAR RISK FACTOR

Hypertension	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Diabetes Mellitus	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Smoking	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Atrial Fibrillation	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Dyslipidemia	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Previous Stroke/TIA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Previous MI/CAD	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Family History of Stroke/TIA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Family History of MI/CAD	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Illicit Drugs	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Alcohol	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Obesity	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Sleep Apnea	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Other:	YES <input type="checkbox"/>	NO <input type="checkbox"/>

specify:.....
.....
.....
.....
.....



PRIOR MEDICATIONS

(List all medication patients was taking before admission to hospital):

I. Antiplatelet Drugs: YES NO

1. Aspirin 2. Clopidogrel 3. Aspirin + Dipyridamole

Oral Anticoagulants: YES NO

1. Warfarin 2. Dabigatran

Antihypertensive Drugs: YES NO

1. Beta blockers 2. Ca²⁺Channel Blockers 3. ACE Inhibitors 4. Diuretics

Antidiabetic Drugs: YES NO

1. Insulin 2. Oral hypoglycemic agents

Statins: YES NO

Other: YES NO

specify:.....
.....
.....



**VITAL SIGNS and LABORATORY FINDINGS
at admission:**

Systolic Blood pressure at admission (mm/Hg): _____

Diastolic Blood pressure at admission (mm/Hg): _____

Heart Rate at admission (beat per minute): _____

(Attach copy of ECG at admission)

LABORATORY	Normal Values	Patient Baseline
White-cell count (per mm³)	4.000-10.000	
Hemoglobin (g/dL)	12-16	
Hematocrit (%)	36-48	
Red Blood Cells (million per liter)	4.2-6.1	
Platelets (per mm³)	150.000-450.000	
INR	0.9-1.2	
Prothrombin time, PT, (sec)	12.2-14.8	
Activated partial thromboplastin time, aPTT, (sec)	23.8-33.6	
BUN (mg/dl)	7-21	
Creatinine (mg/dL)	0.7-1.3	
Cardiac Troponin, Tn, (ng/ml)	0.00-0.04	
Glucose (mg/dL)	54-118	
Sodium (mEq/L)	135 - 145	
Potassium (mEq/L)	3.5 - 5.0	
Chloride (mEq/L)	98 - 108	
Calcium (mEq/dl)	8.4 - 10.2	



NIHSS Baseline	
Time (24 hours): _ _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS – 1 <i>(every 20 ± 5 min from baseline until treatment decision)</i> Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS – 2 <i>(every 20 ± 5 min from baseline until treatment decision)</i> Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS – 3 <i>(every 20 ± 5 min from baseline until treatment decision)</i> Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS at treatment decision	
Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



Treatment Decision

Time (24 hours) _ _ _ _

Time from symptom onset to treatment decision (best estimate in minutes) :

IV rtPA: YES NO

If NO, check the possible following reasons motivating the decision:

- NO measurable neurological deficit
- The neurological signs are clearing spontaneously.
- The neurological signs are minor and isolated
- Major deficits (NIHSS >25)
- The symptoms of stroke suggestive of subarachnoid hemorrhage.
- Onset of symptoms <3 hours before beginning treatment
- Head trauma or prior stroke in previous 3 months
- Myocardial infarction in the previous 3 months
- Gastrointestinal or urinary tract hemorrhagic in previous 21 days
- Arterial puncture at a non-compressible site in the previous 7 days
- Major surgery in the previous 14 days
- History of previous intracranial hemorrhage
- Blood pressure elevated (systolic > 185 mm Hg and diastolic > 110 mm Hg)
- Evidence of active bleeding or acute trauma (fracture) on examination
- Taking an oral anticoagulant or, if anticoagulant being taken, INR > or = 1.7
- Receiving heparin in previous 48 hours, aPTT not in normal range
- Platelet count < 100.000 mm³
- Blood glucose concentration < 50 mg/dL (2.7 mmol/L)
- Seizure with post-ictal residual neurological impairments
- Other (specify:.....)



NIHSS at 6 & ½ hours (± 30 min) from symptom onset Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS at 12 hours from symptom onset	
Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS at 24 hours from symptom onset Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



NIHSS at day-7th or Discharge Time (24 hours): _ _ _ _	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



Modified Rankin Score at day-7th or Discharge

- 0 Asymptomatic.
- 1 Non-disabling symptoms which do not interfere with daily lifestyle.
- 2 Minor disability-symptoms which lead to some restriction in lifestyle but do not interfere with the patient's capacity to look after themselves.
- 3 Moderate disability –symptoms which significantly interfere with lifestyle or prevent totally independent existence, but able to walk without assistance.
- 4 Moderately severe disability –symptoms which prevent independent existence unable to walk without assistance but do not need constant attention day and night.
- 5 Severely disabled –totally dependant requiring constant attention day and night.
- 6 Dead



NIHSS at 90-Day from symptom onset	
1a. Level of Consciousness (0-3)	
1b. LOC Questions (0-2)	
1c. LOC Commands (0-2)	
2. Best Gaze (0-2)	
3. Visual (0-3)	
4. Facial Palsy (0-3)	
5.&6. Motor Arm and Leg:	
5a. Motor Left Arm (0-4 or UN)	
5b. Motor Right Arm (0-4 or UN)	
6a. Motor Left Leg (0-4 or UN)	
6b. Motor Right Leg (0-4 or UN)	
7. Limb Ataxia (0-2 or UN)	
8. Sensory (0-2)	
9. Best Language (0-3)	
10. Dysarthria (0-2 or UN)	
11. Extinction & Inattention (0-2)	
Total NIHSS	



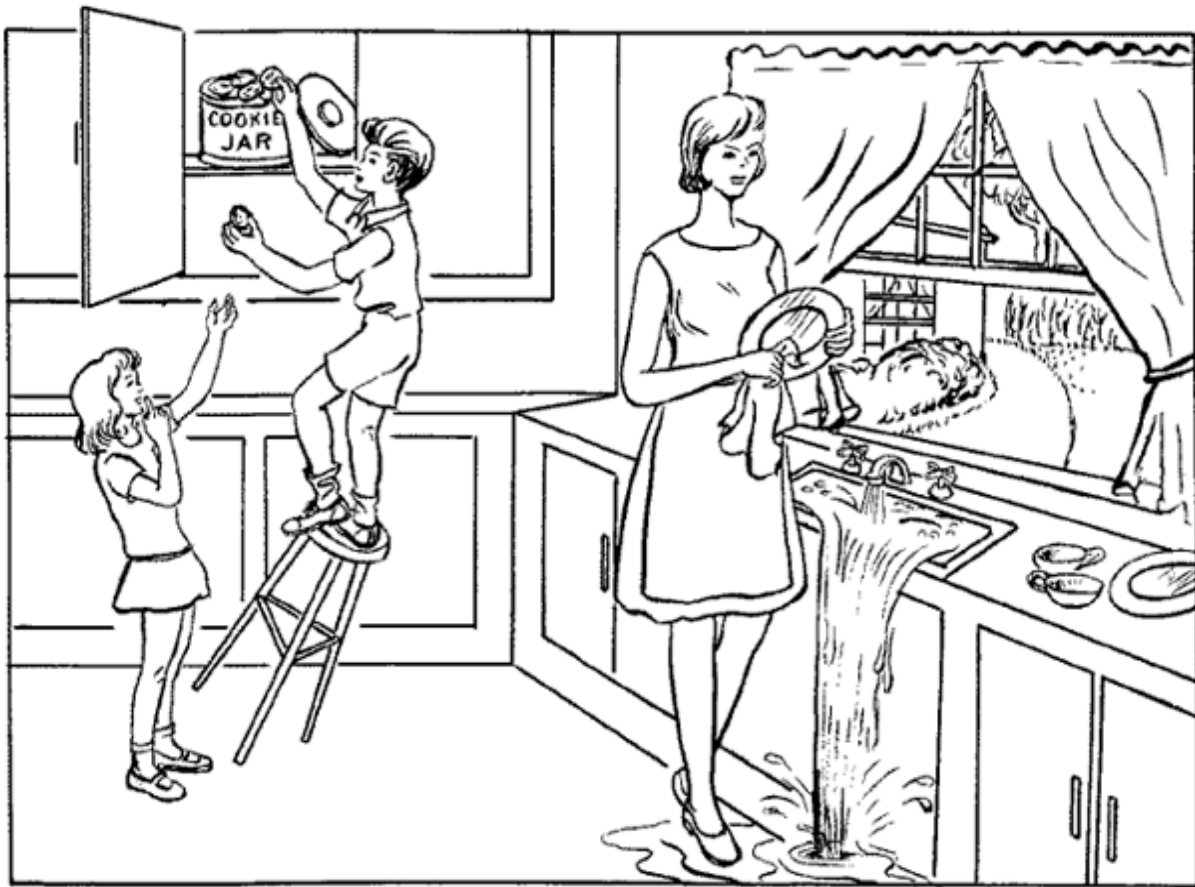
Modified Rankin Score at 90-Day from symptom onset

- 0 Asymptomatic.
- 1 Non-disabling symptoms which do not interfere with daily lifestyle.
- 2 Minor disability-symptoms which lead to some restriction in lifestyle but do not interfere with the patient's capacity to look after themselves.
- 3 Moderate disability –symptoms which significantly interfere with lifestyle or prevent totally independent existence, but able to walk without assistance.
- 4 Moderately severe disability –symptoms which prevent independent existence unable to walk without assistance but do not need constant attention day and night.
- 5 Severely disabled –totally dependant requiring constant attention day and night.
- 6 Dead



Appendix

Cookie Jar Picture



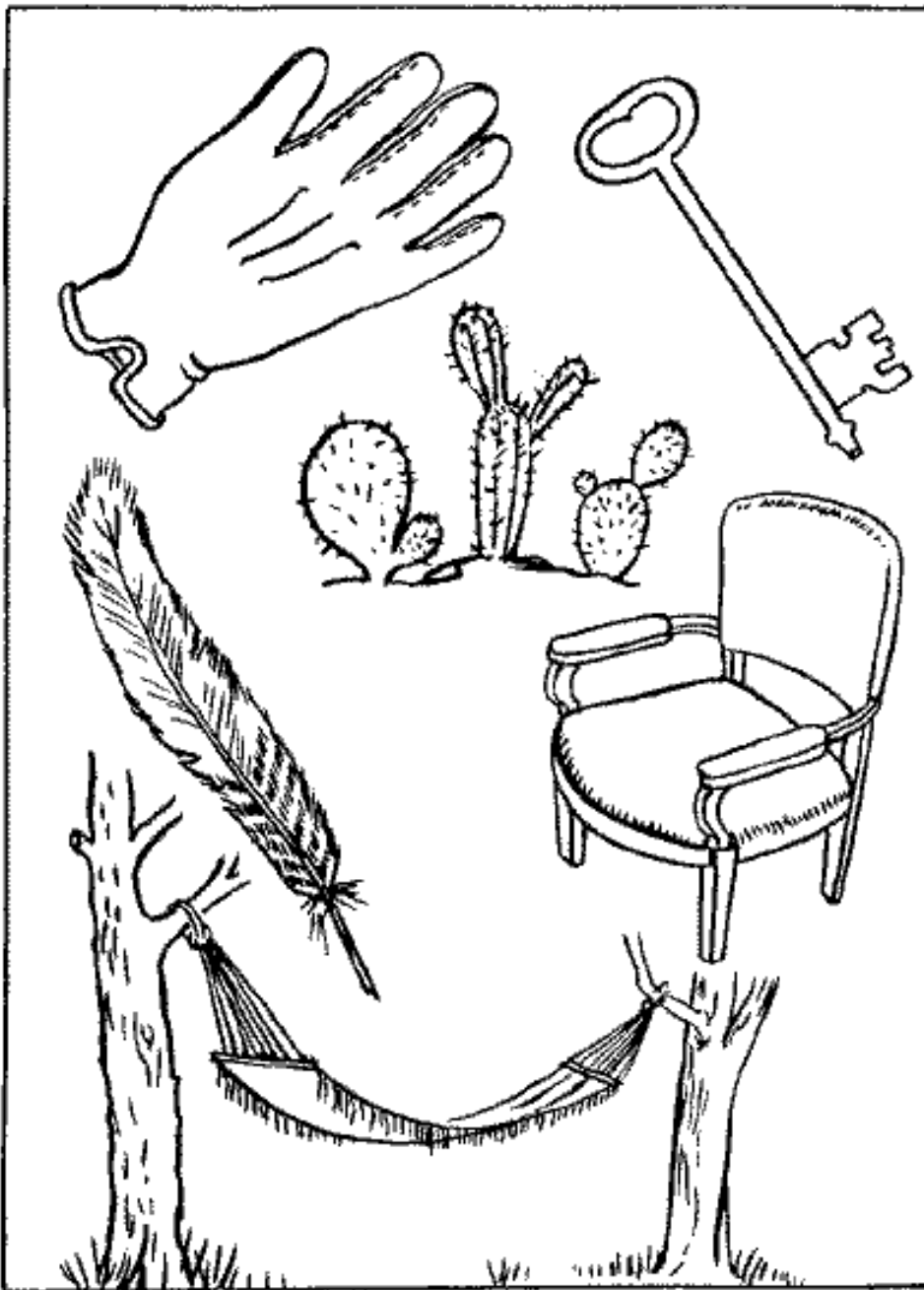
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Dysarthria Words

**MAMA
TIP-TOP
FIFTY-FIFTY
THANKS
HUCKLEBERRY
BASEBALL PLAYER**

Object naming picture





Reading Comprehension Phrases

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.**



ADDITIONAL NOTES

Transcranial Doppler



Date: ___/___/___
mm/dd/yy

Patient-ID:
(SU/KC) Initials 0 0 1
First/Last

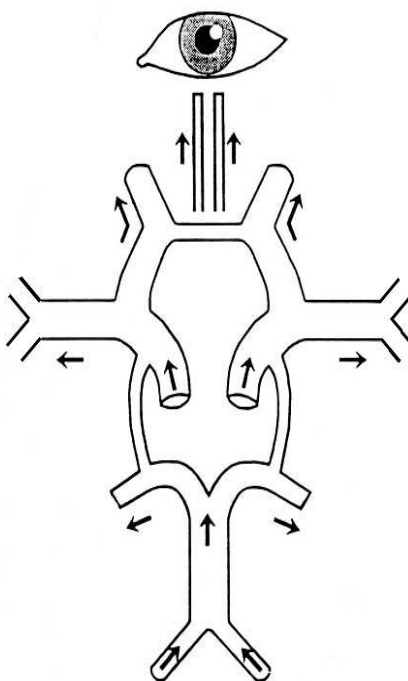
Time exam starts (24hs): ___:___
h h :mm

Time exam finishes (24hs): ___:___
h h :mm

Right

Left

Artery	Depth	MFV cm/s	PI
Ophth			
Siphon			
MCA			
MCA			
ACA			
PCA			
VA			
BA			



Artery	Depth	MFV cm/s	PI
Ophth			
Siphon			
MCA			
MCA			
ACA			
PCA			
VA			
BA			

Transcranial Doppler Interpretation:

Performed by _____

Carotid Duplex

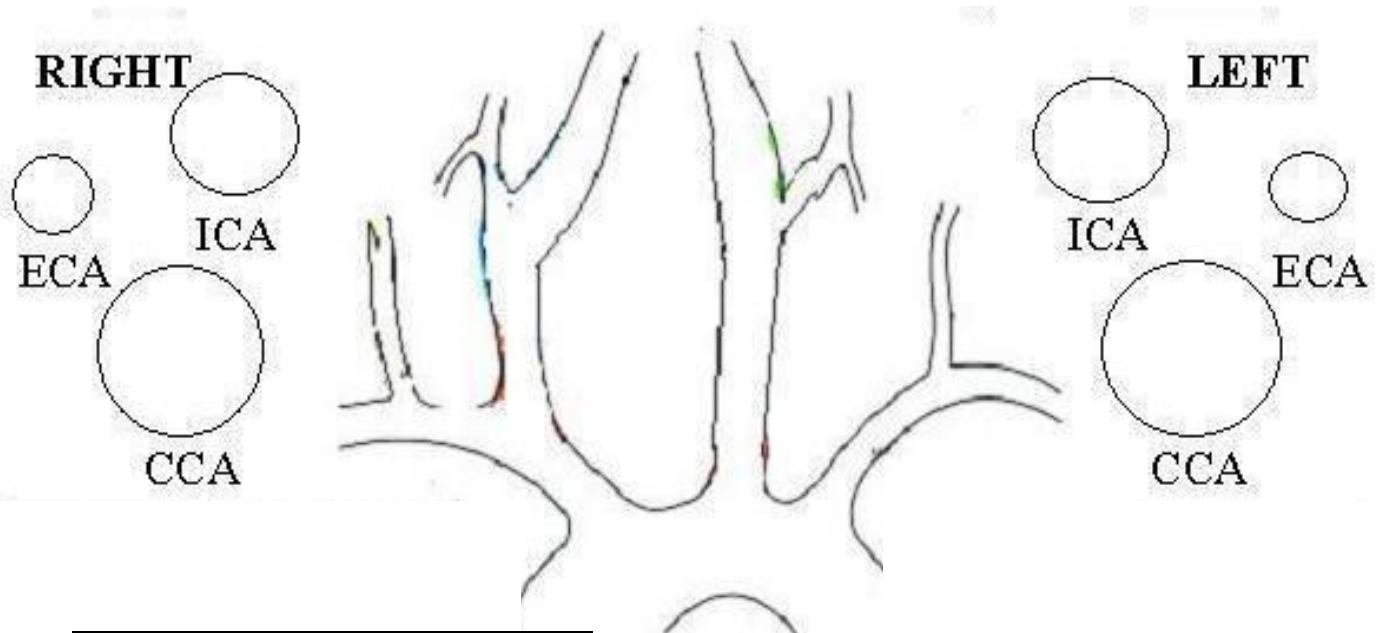


Date: __ / __ / __
mm/dd/yy

Patient-ID:
(SU/KC) Initials 0 0 1
First/Last

Time exam starts (24hs): __ : __
h h :mm

Time exam finishes (24hs): __ : __
h h :mm



Right	PSV cm/s	EDV cm/s
ICA distal		
ICA proximal		
ECA		
CCA		
VA mid		
VA origin		
ICA/CCA PSV		

Left	PSV cm/s	EDV cm/s
ICA distal		
ICA proximal		
ECA		
CCA		
VA mid		
VA origin		
ICA/CCA PSV		

Carotid Duplex Interpretation:

Performed by _____