## Patient Information

1. Study ID number:
2. Date and time of study (M M/D D/Y Y Y Y):

(HH:MM, 24 hr clock):

1. NIH Stroke Scale (NIHSS) at time of study (0-42):[[1]](#footnote-1)
2. Scan purpose (Select all that apply):

Initial

Monitoring

## Technical Information

1. Ultrasound Type:

Transcranial Color-coded Real-time Sonography (TCCS)

Transcranial Doppler (TCD)

1. Probe:
2. Type:
3. Frequency (Hz):
4. Patient type:
5. Asymptomatic
6. Acute Stroke

If Acute Stroke, indicate study type:

Initial

Follow-up 1

Follow-up 2

1. Chronic

i. Stroke:

Hemisphere

Eye

Vertebrobasilar

ii. TIA:

Hemisphere

Eye

Vertebrobasilar

iii. Laterality:

Left

Right

1. Brain Edema
2. Brain Death
3. Sickle Cell
4. Arteriovenous Malformation
5. Monitoring
6. Right Shunt
7. Left Shunt
8. Vasospasm
9. Interpretation site:
10. Onsite
11. Offsite

If Offsite, indicate type:

Video

Print

Digital

1. Contrast Agent:

Yes

Type:

Bolus

Infusion

Other, specify:

No

1. Insonation plane:

Free

Coronal

Axial mesencephalic

1. Insonation window:

Orbital

Excellent

Fair

Poor

Temporal

Excellent

Fair

Poor

Posterior

Excellent

Fair

Poor

## Vessels

1. M1

1 Vessels M1 Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. Insular M2

2 Vessels Insular M2 Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. A1

3 Vessels A1 Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. Internal Carotid Artery (ICA)

4: Vessels ICA Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. P1

5: Vessels P1 Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. P2

6: Vessels P2 Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. Vertebral

7: Vertebral Vessels Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. Basilar

8: Basilar Vessels Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |
| Color flow | Yes  No | Yes  No |
| Spectrum | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): | Depth (mm):  Angle correction:  Yes  No  Peak velocity (cm/sec):  Mean velocity (cm/sec):  Direction to Probe:  Towards  Away from  Asymmetry index:  End diastolic ratio:  COGIF score:  No flow  Low flow/No diastolic flow  Low flow/diastolic flow  Established perfusion  COGIF Follow-up:  Yes  No  If yes, Date (M M/D D/Y Y Y Y):  (HH:MM, 24 hr clock): |
| Symptomatic? | Yes  No | Yes  No |
| Depth | (mm): | (mm): |
| Findings: (select all that apply) | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index | No Signal  Systolic Spike  Reversed Diastolic Flow  Reduced upstroke/ Pulsatility Index |
| Flow Direction: | Towards  Away from | Towards  Away from |

1. EC ICA

9: Vessels EC ICA Table

| Side | Right | Left |
| --- | --- | --- |
| B-mode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |

## Power M Mode

* 1. Left MCA:

Absent

High Resistance

Low Resistance

* 1. Right MCA:

Absent

High Resistance

Low Resistance

## High Intensity Transient Signal Hits

1. Duration time (msec):
2. Intensity (dB):
3. A1:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. Siphon:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. P1:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. M1:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. Ophthalmic:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. Vert:

|  |  |
| --- | --- |
| **Right** | **Left** |
| Yes  No | Yes  No |
| Number: | Number: |
| Start Time:  (hh:mm, 24 hr clock) | Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) | End Time:  (hh:mm, 24 hr clock) |

1. Basilar:

|  |
| --- |
| Yes  No |
| Number: |
| Start Time:  (hh:mm, 24 hr clock) |
| End Time:  (hh:mm, 24 hr clock) |

## Vasomotor Response (VMR)

1. Vessel(s):

MCA

Other, specify:

1. VMR:

Normal (Skip to Diagnosis)

Abnormal

1. Breath-holding index (BHI):

## Diagnosis

1. Extracranial stenosis:

Yes (Select all that apply)

* 1. Collateral:

OA

ACA

VA

* 1. Reduced upstroke
  2. Reduced Pulsatility Index (PI)
  3. VMR
  4. Reduced velocity

No

1. Intracranial stenosis:

Yes

1. Vessel(s):

MCA

ICA

VA

Basilar

Other, specify:

1. % Stenosis:
2. Peak Systolic Velocity (PSV) criterion:
3. Mean velocity criterion:
4. Other:

No

1. Vasospasm:

Yes

1. Severity:

Mild

Moderate

Severe

1. Vessel(s):

MCA

ICA

VA

Basilar

1. Criterion:
2. Lindegaard ratio:
3. Posterior ratio:
4. Intracranial pressure (ICP):
5. Resistive Index (RI):
6. Partial pressure of carbon dioxide (PCO2):
7. Hemoglobin:

No

1. Brain Death:

Yes (Select all that apply)

1. Reversed diastolic flow
2. Systolic spike
3. No signals

No

1. Sickle Cell (indication for study):

Normal

Conditional

* 1. Vessel(s):

MCA

Other, specify

* 1. Velocity:

Abnormal

1. Vessel(s):

MCA

Other, specify

1. Velocity:

## General Instructions

This CRF contains data that would be collected when a transcranial vessel imaging study is performed to examine brain vessels and evaluate cerebral hemodynamics.

The data elements are Supplemental and should only be collected if the research team considers them appropriate for their study.

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.

1. NIHSS is also included on other Stroke CDE CRF Modules. This item should be pre-populated if initially collected elsewhere so as to avoid redundant data points. [↑](#footnote-ref-1)