## 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):

Diagnostic

Post-treatment

Monitoring

## Technical Information

1. Probe:
   1. Type:
   2. Frequency (Hz):
2. Patient type:
   1. Asymptomatic
   2. Acute Stroke

If Acute Stroke, indicate study type:

Initial

Follow-up 1

Follow-up 2

* 1. Chronic Stroke
  2. Brain Edema
  3. Vasospasm

1. Interpretation site:
   1. Onsite
   2. Offsite

If Offsite, indicate type:

Video

Print

Digital

1. Contrast Agent:

Yes

No (Skip to Question 5)

* 1. Agent:
  2. Type:

Bolus

Infusion

Other, specify:

1. Read type (Select all that apply):

Local read

Local report

Central read

1. Reader blinded to clinical data:

Yes

No

1. Study technically satisfactory:

Yes

No

1. Insonation plane:

Free

Coronal

Axial mesencephalic

## \*Vessels

(All elements in this section are considered Core Stroke CDEs for TCCS)

1. M1

Vessels M1 Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. Insular M2

Vessels Insular M2 Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. A1

Vessels A1 Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. Internal Carotid Artery (ICA)

: Vessels ICA Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. P1

: Vessels P1 Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. P2

: Vessels P2 Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | 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 |

1. EC ICA

: Vessels EC ICA Table

| Side | Right | Left |
| --- | --- | --- |
| Bmode | Normal  Stenosis  Occlusion | Normal  Stenosis  Occlusion |

## Microembolic Signals

1. Unidirectional?

Yes

No

1. Duration time (msec):
2. Intensity (dB):
3. Settings:
   1. Leading cols (mm):
   2. Trailing cols (mm):
   3. Threshold (mm):
   4. Rejection (mm):
4. A1: {CDE# C14015}
   1. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

* 1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Siphon:
2. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. P1:
2. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. M1:
2. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Ophthalmic:
2. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Vert:
   1. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

* 1. Left:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

1. Basilar:
   1. Right:

Yes

No

Number:

Start Time:

End Time:

(hh:mm, 24 hr clock)

* 1. Left:

Yes

No

Number:

Start Time:

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)

No (Skip to Question 2)

* 1. Collateral:

OA

ACA

VA

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

1. Intracranial stenosis:

Yes

No (Skip to Question 3)

* 1. Vessel(s):

MCA

ICA

VA

Basilar

Other, specify:

* 1. % Stenosis:
  2. PSV criterion:
  3. Mean velocity criterion:
  4. Other:

1. Vasospasm:

Yes

No (Skip to Question 4)

* 1. Normal

Abnormal

* 1. Severity:

Mild

Moderate

Severe

* 1. Vessel(s):

MCA

ICA

VA

Basilar

* 1. Criterion:
  2. Lindegaard ratio:
  3. Posterior ratio {CDE# C14029}:
  4. Intracranial pressure (ICP):

Resistive Index (RI), specify:

Other:

* 1. Partial pressure of carbon dioxide (PCO2):
  2. Hemoglobin:

1. Brain Death:

Yes (Select all that apply)

No (Skip to Question 5)

* 1. Vessel(s):

MCA

ICA

VA

Basilar

Ophthalmic Artery

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

1. Sickle Cell:

Yes

No (Stop)

* 1. Vessel(s):

MCA

Other, specify

* 1. Velocity:
  2. Criterion:
  3. Diagnosis:

Normal

Conditional

Abnormal

## General Instructions

This CRF contains data that would be collected when an imaging study is performed using TCCS to examine the brain vessels and evaluate cerebral hemodynamics.

Important note: A subset of the data elements included on this CRF Module is considered Core (i.e., strongly recommended for stroke clinical studies to collect if imaging studies are performed). The remaining data elements (i.e., non Core) 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. There is actually a single Data Dictionary for all of the imaging CDEs as the six different CRF Modules for stroke imaging share many elements.

The CRF includes all instructions available for the data elements at this time. More detailed instructions will be added in Version 4.0 of this CRF Module.

\*Recommended as a Core Stroke CDE if protocol includes imaging

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)