1. Date of scan:
2. Equipment:
3. Magnet Strength (Choose one):

1.5T 3T 4T 7T Other, specify:

1. Coil (Choose one):

Single Coil 8-ch 16-ch 32-ch Other, specify:

1. Name of the scanner manufacturer:

GE  Siemens  Philips  Toshiba  Other, specify:

1. Number of different MRI scanners used:
2. Scanner software or hardware updates during study performance:
3. Quality Assurance:
   1. What measures of quality assurance scans were used?
4. Imaging Paradigm:
   1. Approach: (Choose all that apply)

Evoked Functional Scan with Stimulation or Task

* + 1. Type of stimulation, if applicable:

Sensory

Non-painful (specify modality: e.g. visual/auditory/olfactory/gustatory/tactile)

Painful (specify modality: e.g. thermal, visual, chemical)

* + 1. Device used for stimulation:

1. Make:
2. Model:
3. Year:
   * 1. Details of the stimulation paradigm:
        1. Duration on period (include units):
        2. Duration off period (include units):
        3. Randomization technique: Randomized delivery Non-randomized delivery
        4. Are there multiple evoked functional acquisitions? Yes No
        5. Total number of stimulations?
        6. If there are multiple evoked functional acquisitions, what is the rest duration in between acquisitions? Seconds

Evoked Functional Scan with Patient Task

1. Type of patient task, if applicable:  Motor  Cognitive  Other, specify:
2. Duration on period (include units):
3. Duration off period (include units):
4. Randomization technique: Randomized delivery Non-randomized delivery
5. Are there multiple evoked functional acquisitions? Yes No
6. Total number of performed tasks?
7. If there are multiple evoked functional acquisitions, what is the rest duration in between acquisitions (include units)?

Resting State Functional Imaging

Perfusion Imaging (e.g. Arterial Spin Labeling)

Other

* + - * 1. Anatomical Image/Normalisation Image:

1. Imaging parameters:
   * + 1. Repetition time (TR): ms
       2. Echo time (TE): ms
       3. Voxel size: mm
       4. Matrix size: mm
       5. Field of view: mm2
       6. Number of slices:
     1. Scan time duration (include units):
     2. Acquisition type:
     3. Reconstruction method used:
2. Functional Imaging:
   * 1. Imaging parameters:
        1. Repetition time (TR): ms
        2. Echo time (TE): ms
        3. Flip angle (FA): **°**
        4. Voxel size: mm
        5. Number of averages:
        6. Matrix size: mm
        7. Field of view: mm2
        8. Slice thickness: mm
        9. Number of slices:
        10. Gap between slices: mm or %
     2. Scan time duration: minutes
     3. Acquisition type: EPI SSFSP Spiral Other, specify:
     4. Reconstruction method used:

Event related fMRI  Block design fMRI

v. Was a fixation landmark used? Yes No

1. Were the participant’s/subject’s eyes open or closed (Choose one):

Eyes Open Eyes Closed

1. Preprocessing:

A. What format was the data exported from the scanner to local workstations/computers?

B. Was QA performed on the data for artifact detection and potential exclusion of the subject data from analysis? Yes No

C. Was the data denoised? Yes No

D. Was High/Low Pass filter approach used? Yes No

E. Describe motion correction technique and the pass criteria:

F. Was skull stripping performed for anatomical and functional images? Yes No

G. Were any of the following performed? Smoothing Upsampling/downsampling

* 1. If one of the above is selected, specify details:

H. Describe the spatial normalization approach transformation from functional space to a standard brain space:

I. Report the standard average brain used:

1. Timing of imaging in relation to headache:  ictal,  inter-ictal  peri-ictal
   1. If ictal, pain intensity at time of recordings:
   2. If ictal, duration of time since onset of headache (include units):
   3. If inter-ictal or peri-ictal, duration of time since end of last headache (include units):
   4. If inter-ictal or peri-ictal, duration of time until start of next headache (include units):
2. Processing and Analysis:
3. What processing tool(s)/package(s) version(s) was/were used for analyzing the data? (Choose all that apply)

FSL, Version:

SPM, Version:

AFNI, Version:

Brain Voyager, Version:

IMAGEJ, Version:

FREESURFER, Version:

SLICER, Version:

MRICron,Version:

LC Model,Version:

Other, specify: Version:

1. Analysis approach:
2. Analysis Type:

Region of interest  Whole brain  Independent Components Analysis  Other,specify

* 1. If region of interest approach, please complete the following:
     1. Region coordinates (x,y,z; atlas space)
     2. Region size (mm)

1. Describe the details of the assumptions/settings for first-level time series analysis:
2. Define contrasts:
3. What were the statistical tests used for group analysis:
4. Reporting:
5. Indicate the p-values used for comparisons between cohorts or the group averages:
6. Describe the rationale for choosing the thresholds for thresholding the results:
7. Describe the method chosen for correcting for multiple comparisons:
8. If applicable, indicate the coordinate of significant clusters: N/A
9. If applicable, indicate the size of the significant clusters: N/A
10. If applicable, indicate the p-values used for any correlative analysis: N/A

## General Instructions

This CRF contains data that would be collected when an imaging study is performed to detect the structure–function relationships within the brain that are characteristic of headache.

Headache or migraine specific elements/measures that are not captured on this form but are important to the imaging analysis should be collected on other study-specific source documentation (e.g. Headache Diary, Concomitant Medications).

Important note: All elements on this CRF are considered 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.

The CRF includes all instructions available for the data elements at this time

* Date of scan– Record the date/time according to the ISO 8601, the International Standard for the representation of dates and times ([Click here for International Standard for Dates and Times](http://www.iso.org/iso/home.html)). The date/time should be recorded to the level of granularity known (e.g., year, year and month, complete date plus hours and minutes, etc.).
* Magnet Strength – Choose one
* Coil - Choose one
* Name of the scanner manufacturer – Choose one
* Number of different MRI scanners used – Report the number of different MRI scanners that were used for imaging participants during the study
* What measures of quality assurance scans were used? – Examples include visual inspection by radiologist/ radiology technician.
* Approach - Choose all that apply
* Type of stimulation – Choose all that apply
* Device used for stimulation – Report the specifications of the device used to stimulate the participant during the evoked functional scan
* Duration on period – the duration that each stimulation is given during the imaging paradigm
* Duration off period – the duration between individual stimuli during the imaging paradigm
* Randomization technique – Choose one. Report whether the order of the stimuli or order of on and off-periods was random or non-random.
* Are there multiple evoked functional activations? Report the number of imaging sequences/runs of evoked functional activations.
* Total number of stimulations – Report the total number of times that the patient was stimulated during the study.
* If there are multiple evoked functional acquisitions, what is the rest duration in between acquisitions? Report the duration of time between each functional activation
* Type of patient task – Choose all that apply
* Duration on period – the duration that each task is performed during the imaging paradigm
* Duration off period – the duration between each task performance during the imaging paradigm
* Randomization technique – Choose one. Report whether the order of tasks or the order of on periods and off periods are random or non-random.
* Are there multiple evoked functional acquisitions - Report the number of imaging sequences/ runs of evoked functional activations.
* Total number of performed tasks – Report the total number of times that the patient performed a task during the study.
* If there are multiple evoked functional acquisitions, what is the rest duration between acquisitions – Report the duration of time between each functional acquisition
* Anatomical Image/Normalisation Image – the anatomical image that is used to visualize/localize the functional activity.
* Repetition time (TR) – No additional instructions
* Echo time (TE) – No additional instructions
* Voxel size – No additional instructions
* Matrix size – No additional instructions
* Field of view – No additional instructions
* Number of slices – No additional instructions
* Acquisition type – No additional instructions
* Reconstruction method used – No additional instructions
* Flip angle – No additional instructions
* Number of averages – No additional instructions
* Slice thickness – No additional instructions
* Gap between slices – No additional instructions
* Scan time duration – Report the duration of the imaging paradigm
* Reconstruction method used – Choose one
* Non-stimulation based functional paradigms – No additional instructions
* Preprocessing – No additional instructions
* Timing of imaging in relation to headache – report the timing of imaging in relation the headache. The precise time windows for peri-ictal and inter-ictal vary with headache type. For episodic migraine, an interval of at least 72h from the last and before the next attack is generally accepted for “inter-ictal”.
* Processing and Analysis – No additional instructions
* Indicate the p-values used for comparisons between cohorts or the group averages – No additional instructions
* Describe the rationale for choosing the thresholds for thresholding the results – No additional instructions
* Describe the method chosen for correcting for multiple comparisons – No additional instructions
* If applicable, indicate the coordinate of significant clusters: If applicable, specify the coordinate of significant clusters. If not applicable, select ‘N/A’
* If applicable, indicate the size of the significant clusters. If not applicable, select ‘N/A’
* If applicable, indicate the p-values used for any correlative analysis: If applicable, specify the p-values used for any correlative analysis. If not applicable, select ‘N/A’