Authorisation of MEG Operator

Operator Name:

Participant Safety, MRI T1 Scan Requests and Data Retrieval.	
Have read the CHBH OPLR (Operating Procedures and Local Rules) and agree to abide by them. **Date:** __ / __ / __	
Have read the MEG Specific OPLR (Part D) and agree to abide by them. **Date:** __ / __ / __	
Aware of the importance of initial screening/contraindications when recruiting Participants for MEG Acquisition (MEG Safety Screening Questionnaire), and MRI Scanning (MRI Safety Screening Questionnaire, for T1), and referral to MEG Support Officer or PI/Supervisor in uncertain situations. For MRI T1's, refer to MRI Radiologist. After recruiting Participant, aware of the importance to follow the correct procedure to request a T1 scan (see the following webpage https://www.chbh.bham.ac.uk/wiki/index.php/Requesting_a_T1_scan) and, after the T1 has been taken, to follow the correct procedure if the participant asks for their MRI data e.g. usually just picture of one slice of their brain, but sometimes the complete T1 or the full MRI dicom data set (see the following webpage https://www.chbh.bham.ac.uk/wiki/index.php/CHBH_Scan_request_process)	
Aware of responsibility regarding supervision of Visitors and Participants whilst in the MEG Laboratory.	
Knowledge of MEG Laboratory	
Have undergone building induction/GU training and have access to MEG secure corridor (swipe access).	
Know location of keys to MEG Laboratory and IHR room (Key Safe) and know Key Safe combination.	
Know location of Oxygen Level Alarm beacons/sounders, and what to do if they activate.	
Know location of fire call point, fire extinguishers and MEG corridor emergency fire exit, and how to open fire exit doors, and know location of CHBH fire assembly point if the Fire Alarm sounds. Know how to follow the MEG Evacuation Plan (MEEP).	
Know how to open the MSR door in an emergency.	
Know principles of IHR operation and are aware of adherence to the Helium Recycler Scheduler/MTB.	
Know location of MEG Consumables, EEG caps, etc.	
Know how to check power level and how to charge EyeLink Batteries (old and new), know procedure to follow once Batteries are fully charged. Know where to power on/power off EyeLink AC Adapter if that is preferred for usage.	
With two Stim PCs in use, know how to reboot Display Port Adapter power (and what happens afterwards), how to swap between Parallel Ports (and the issues if not swapped), how to use the KVM to swap connections between the Stim PCs.	
Know EoD equipment shutdown procedure. Know how to access CHBH MEG Wiki pages for Tidying_Up information.	
Start and End of MEG Acquisition	
Aware of the importance of not bringing non-essential items into the MEG Control Room (coats, bags etc. – trip hazard).	
Able to enter Participant details correctly on the Participant Logging Computer, and how to generate codes if PLC unavailable https://www.chbh.bham.ac.uk/wiki/index.php/The_Participant_Logging_Computer_is_offline	
Able to log in to the DACQ console and Stimulus Computers (where applicable) and start Acquisition, experimental paradigms.	
Aware of responsibility to return stimulus equipment e.g., PROPixx projector, to default settings ready for next user, and how to "awake" and "sleep" the projector as necessary.	
Aware of responsibility to move gantry to Liquefaction position (25) if last session of the day. Check MSR before leaving.	
Aware of responsibility to shutdown equipment (where applicable)/lock MEG Lab/IHR room, return key to key safe if last session of the day https://www.chbh.bham.ac.uk/wiki/index.php/Tidying_Up	
Able to fill in consent/screening forms correctly. To also fill in a Measurement Log & Information sheet every time the Lab is used.	
Aware of responsibility to then safely file the screening and ethics forms after Acquisition, complying with Data Protection Act 2018, to the black post box on wall by the Reception door.	
Within the MSR	
Aware of responsibility to fully screen self and any individual prior to entering the MSR, for items that are non-MEG compatible. To have Participant changed into MEG scrubs (if necessary) and performed comprehensive usage of metal detector/s with Participant before allowing them entry. *Metal Items Checklist* on MSR door, also see @ below.	
Aware of cultural sensitivity issues and able to respond to differences in an appropriate and respectful way. MEG Lab door has a blind that can be pulled down over the glass panel.	
Able to operate/adjust the gantry to the required Acquisition position. Able to use/adjust the gantry chair correctly, allowing safe insertion and removal of a participant before/after an Acquisition session. https://www.chbh.bham.ac.uk/wiki/buic-files/MEG/NM25757A_TRIUX_Patient_Positioning_IFU.pdf	
Able to safely plug in and remove HPI cables, Audio cables, ECG/EOG cables, EEG caps etc.	
Able to use MR-compatible vision correction lenses on Participant, correctly using the Loc-Line GoPro mount, and to replace lenses back in case correctly afterwards.	
Able to set up stimulus response NAtA button boxes/other stimulus equipment, and to tidy up/wrap up FO cables carefully after use.	
Able to adjust projector/projector screen, to set up EyeLink FO Camera Head/IR Illuminator + Battery (or AC Adapter) Power, other equipment (as necessary). See MEG Wiki pages for EyeLink setup information.	
Within Stimulus Cabinet	
Able to power on/off relevant equipment, response recovery equipment (as necessary).	

Acquiring MEG data	
Aware of how to book Acquisition slots on Calpendo and booking protocols including the cancellation policy. Check the MEG Bookings Wiki page https://www.chbh.bham.ac.uk/wiki/index.php/MEG_Bookings	
Able to set up and start/stop an Acquisition, adjusting parameters/triggering as required.	
Able to Restart Acquisition ('RAP'), load Tuning file, Reset Electronics (as necessary, or as directed by MEG Support Officer).	
Able to modify/adjust stimulus parameters/triggering as necessary.	
Able to correctly attach cHPI electrodes and perform a cHPI check, to attach disposable, or reusable, BIO electrodes (as necessary), also EEG caps (if required). Tidying up *Polhemus* neatly afterwards.	
Able to use MEG Participant intercom, always being aware of Participant's condition (keep an eye on the MSR video monitor) and keep them involved.	
Have RDS Project space to save Acquired data to after session and have a BlueBEAR Linux account to enable data copying.	
Able to save MEG data and able to copy off said data over to RDS once finished.	
Aware of procedure to contact MEGIN in case of MEG fault (as necessary, or as directed by MEG Support Officer). The Control room has a telephone capable of making international calls.	
Viewing MEG data	
Able to identify physiological artefacts e.g., eye blinks, heartbeats.	
Able to identify non-physiological artefacts e.g., caused by non-MEG compatible objects in the MSR e.g. Bluetooth headphones. See specific MEG Wiki page for examples of atypical signals (eye blinks, teeth clench).	
Able to identify signal e.g., occipital alpha.	
Infection Control, Hygiene and Cleaning	
Aware to provide Participants with clean MEG scrubs for each Acquisition session (if required).	
Aware of using alcohol hand gel during Acquisition sessions when required e.g., before attaching cHPI coils/electrodes.	
Aware of responsibility to clean cHPI coils, wipe gantry helmet with alcohol gel/paper towel, button boxes with alcohol wipes, after Acquisition, generally tidy up ready for next MEG user.	
Aware to follow the Tidying-Up checklist carefully and correctly, after every Acquisition session. https://www.chbh.bham.ac.uk/wiki/index.php/Tidying_Up	
To place all disposable items used during the Acquiring session into the provided waste pedal bin.	
Emergencies	
Able to calmly evacuate Participant from MSR in case of Fire Alarm, or Oxygen Depletion Alarm (Helium leak), sounding, following the MEG Emergency Evacuation Plan (MEEP) https://www.chbh.bham.ac.uk/wiki/index.php/MEG_Safety	
Able to respond appropriately if the Participant requires assistance in the MSR (keep a close eye on MSR video monitor).	
Know how to summon appropriate help e.g., First Aiders (see FA lists on wall), Paramedics (999), Security (44444) Telephone landline available, situated next to EyeLink PC, with commonly-used list of numbers.	
Aware to contact Security if no First Aiders can be located on-site, know the location of the First Aid box in MEG Laboratory (on EEG trolley), know the location of the defibrillator and CHBH Emergency Box (to right of ground floor lift door).	
Aware of responsibility towards supervision of emergency staff who may attend the MEG Laboratory. Inform them of the location of Liquid Helium (MEG Dewar), pressurised Helium (IHR gas tanks), Gas cylinders (Helium and Nitrogen).	
Additional	
Aware of working safely during Acquisition and not to rush Acquiring thus compromising Participant, Operator, and equipment safety.	
Aware of importance of reporting any Health and Safety concerns, or inappropriate behaviour, within the MEG environment, to MEG Support, or by using the anonymous online form, ctrl-clickable, shown below https://forms.office.com/Pages/ResponsePage.aspx?id=z8oksN7eQUKhXDyX1VPp81sVDBuMmexAvJS-2EDHiQVUOU5MRkwyR1RHNkdZWUs4NjQwVUY2VUxVSyQlQCN0PWcu	
Aware that mental wellbeing is of utmost importance within the MEG environment and to raise any concerns with any processes and policies, or anything else such as fatigue, uncertainty, or worry, to MEG Support in the first instance.	

NOTE: You will need to co-participate in at least 3 Acquisition sessions BEFORE you can be signed-off as Trained MEG operator.

MEG Trainee Signature:	**Date:** ___ / ___ / _____

Verified by:

MEG Operator Signature:	**Date:** ___ / ___ / _____
MEG Support Signature:	**Date:** ___ / ___ / _____

@ New additions to look for, causing potential noise in MEG Acquisition.

- Coloured contact lenses.
- "Quick Attach" false eye lashes.