

**COVID-19 supplements to approved procedures  
MRI (AP17; FMRIB)**

1. DEPARTMENT/FACILITY DETAILS	
<b>Department:</b>	NDCN
<b>Facility:</b>	FMRIB 3T and 7T MRI Scanner
<b>Author(s):</b>	Stuart Clare, Jon Campbell
<b>Reviewer(s):</b>	Juliet Semple
<b>Authorised (date):</b>	Kevin Talbot (09/09/2020)
<b>Date (Version)</b>	24/8/2020 (Version 1)
<b>Activity Summary</b> ( <i>Types of activities expected &amp; authorised to take place</i> ):	
<ol style="list-style-type: none"> <li>1. MRI Scanning of human participants</li> <li>2. Questionnaires/interviews required for assessing the safety to scan the participant and take consent</li> </ol>	

2. CONTROLLING THE NUMBERS AND TYPE OF PEOPLE ENTERING THE FACILITY		
Risk/Issue	Specific Measures Adopted	Outstanding Actions
Ensuring staff/students with Covid-19 symptoms, or those that are self-isolating, do not enter the facility	<ul style="list-style-type: none"> <li>• Staff or students with Covid-19 symptoms will not conduct research on human participants. The <a href="#">current guidance on symptoms from the NHS</a> is as follows but if symptom guidance changes, we would follow the current advice               <ul style="list-style-type: none"> <li>○ <b>high temperature</b> – this means you feel hot to touch on your chest or</li> </ul> </li> </ul>	

	<p>back (you do not need to measure your temperature)</p> <ul style="list-style-type: none"> <li>○ <b>new, continuous cough</b> – this means coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours (if you usually have a cough, it may be worse than usual)</li> <li>○ <b>new onset loss or change to your sense of smell or taste</b> – this means you've noticed you cannot smell or taste anything, or things smell or taste different to normal</li> </ul> <ul style="list-style-type: none"> <li>● Staff/students that are self-isolating will not conduct research on human participants. The <a href="#">current guidance from the NHS</a> is to self-isolate if <ul style="list-style-type: none"> <li>○ you have any <a href="#">symptoms of coronavirus</a> (a high temperature, a new, continuous cough or a loss or change to your sense of smell or taste)</li> <li>○ you've tested positive for coronavirus – this means you have coronavirus</li> <li>○ you live with someone who has symptoms or has tested positive</li> <li>○ someone in your support bubble has symptoms or has tested positive</li> <li>○ <a href="#">you're told by NHS Test and Trace that you've been in contact with a person with coronavirus</a></li> </ul> </li> </ul>	
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	<ul style="list-style-type: none"> <li>• PIs will be responsible for ensuring that the importance of these measures are understood by their research group and the responsibility on individuals to comply.</li> </ul>	
Ensuring research participants with Covid-19 symptoms do not enter the facility	<ul style="list-style-type: none"> <li>• Researchers will communicate with their research participant (email/phone/letter as appropriate) that they should not travel to the facility if they experience any of the symptoms of Covid-19 or self-isolating for any of the above reasons.</li> <li>• Calpendo booking system will remind researchers, on the day of scanning, to check with their participant that they are asymptomatic and not self-isolating.</li> <li>• The researcher will meet the participant outside the FMRIB building where they will be screened for COVID-19 symptoms (including temperature measurement using the non-contact infrared forehead thermometer if there is any doubt)</li> <li>• Only if the participant has a normal temperature and no reported symptoms will they be admitted to the building.</li> </ul>	
<p>Assessing risk to vulnerable participants (those at a higher risk from Covid-19). People to consider in this category include (but not limited to):</p> <ul style="list-style-type: none"> <li>• Those classified by the government as clinically extremely vulnerable (shielding)</li> <li>• Those classified by the government as clinically vulnerable</li> <li>• Those aged over 70</li> </ul> <p>And others on the following lists:</p>	<ul style="list-style-type: none"> <li>• Principal investigators will identify whether their participants have a higher risk from Covid-19.</li> <li>• Those in vulnerable categories will only be included in the study if it is agreed by the researchers' Head of Department that the benefits of the research merit their inclusion.</li> </ul>	

<ul style="list-style-type: none"> <li>• <a href="#">NHS list of individuals at a higher risk from coronavirus</a></li> <li>• <a href="#">UK government guidance on shielding and protecting clinically extremely vulnerable persons</a></li> </ul>		
<p>Minimising the risk of overlap between different users of the facility</p>	<ul style="list-style-type: none"> <li>• The Calpendo booking system will be used for all scanning work. Researchers will keep to their booking and vacate the scanner in good time before the end of their session.</li> <li>• Additional time will be allocated (without extra charge) for each booking to minimise overlap.</li> </ul>	
<p>Minimising the number of staff present</p>	<ul style="list-style-type: none"> <li>• Each study, and procedures used in that study, will be reviewed to establish the minimum number of staff needed to <b>safely</b> carry out the scan.</li> <li>• Trainee students or observers will only be present if it is absolutely essential for the ongoing viability of the study, as agreed by the PI following discussion with the relevant departmental director of graduate studies.</li> </ul>	
<p>Minimise the number of visits to the facility by research participants</p>	<ul style="list-style-type: none"> <li>• Research participants will be MRI safety screened by the researcher, by phone, before the day of the scan to avoid them travelling to the facility if there is uncertainty as to the safety to scan. Radiographers/scan ops will still screen the participants themselves on the day of the scan.</li> </ul>	
<p>Minimise the number of additional people visiting the facility</p>	<ul style="list-style-type: none"> <li>• In general, participants will not be permitted to have another person accompany them within the building.</li> </ul>	

	<ul style="list-style-type: none"> <li>Participant companions will be warned in advance that they will not be allowed to enter the FMRIB building and given suggestions for where they should wait e.g. their car if driving.</li> <li>Exceptions will be made when the participant is under 18, or the participant has needs that cannot be performed safely by the research team.</li> </ul>	
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<b>3. REDUCING THE SPREAD OF COVID-19</b>		
<b>Risk/Issue</b>	<b>Specific Measures Adopted</b>	<b>Outstanding Actions</b>
Spread by airborne particles (cough, sneeze)	<ul style="list-style-type: none"> <li>Maximum room occupancies for all rooms in the building have been established and notices are posted on the doors. These will not be exceeded.</li> <li>2m distancing between all individuals (researchers and participants) will be maintained whenever possible.</li> <li>The University Face coverings policy will be followed.</li> <li>A type 2, droplet resistant surgical mask will be worn by everyone in the room. This includes: <ul style="list-style-type: none"> <li>scanner control rooms</li> <li>testing and prep rooms</li> </ul> </li> <li>On arrival, the research participant will be given a fluid resistant surgical mask to wear while they are in the building (other than during scanning)</li> </ul>	

Spread by airborne particles, recirculated by room ventilation (air conditioning)	<ul style="list-style-type: none"> <li>All air-conditioning units in FMRIB recirculate the air within that room. If more than one person is present in a room with air conditioning turned on then, <b>even if 2m distancing can be achieved</b>, a type 2, droplet resistant surgical mask will be worn.</li> </ul>	
Incorrect use of face masks or PPE	<ul style="list-style-type: none"> <li>All staff/students who need to wear face masks or PPE will be trained in the correct use, donning and doffing of face masks, which will be recorded (Appendix 1).</li> <li>Surgical face masks will be disposed of in the clinical waste bins in the facility.</li> </ul>	
Spread by contact with contaminated surfaces	<ul style="list-style-type: none"> <li>On entering the building and the scanning facility, all researchers and participants will sanitize their hands using the wall mounted units.</li> <li>Researchers will wash their hands or sanitize at regular intervals. Signs will remind them of this.</li> </ul>	
Spread by contact with contaminated objects	<ul style="list-style-type: none"> <li>Wherever possible pens will not be shared. If pens are shared, then they will be wiped with universal wipes before and after use.</li> <li>Only one screening form will be given to the participant (not the whole clipboard of forms)</li> <li>Blankets will not be reused without washing</li> </ul>	
Movement around the building increasing risk of spread	<ul style="list-style-type: none"> <li>Rooms used by researchers or participants will be limited, so that it is easy to identify which surfaces need cleaning.</li> <li>Upon arrival, the participant will be taken directly to the designated testing room.</li> </ul>	

	<ul style="list-style-type: none"> <li>• Participants will be advised to wait in their car, or outside the building if they are early for their scan.</li> <li>• Additional time will be allowed for each booking to ensure that there is no need for any participant to wait in the building for their scan (accommodating for delays)</li> <li>• The participant will use a designated changing area/room, and this area will not be used by anyone else without being cleaned (see below)</li> </ul>	
Close contact with the participant	<ul style="list-style-type: none"> <li>• The radiographer (or scanner operator) will wear level 1 PPE for any close contact with the research participant. This includes: <ul style="list-style-type: none"> <li>○ Fluid resistant surgical mask</li> <li>○ Eye protection or visor (if risk assessed as necessary)</li> <li>○ Disposable plastic apron</li> <li>○ Disposable gloves</li> </ul> </li> </ul>	
Infection control during a cardiac arrest	<ul style="list-style-type: none"> <li>• A modified procedure (following OUH guidance) will be used which minimises close contact – See Appendix 2.</li> <li>• Level 2 PPE is available on the crash trolleys at FMRIB. Radiographers and scan-ops will be trained in donning and doffing, as will any researcher carrying out a study with enhanced risk of cardiac arrest (Cat 2/3 studies)</li> </ul>	


4. ENHANCED CLEANING		
Risk/Issue	Specific Measures Adopted	Outstanding Actions

Cleaning of the scanning facility	<ul style="list-style-type: none"> <li>• At the end of the scan the radiographer/scan-op will wipe down the scanner using the wipes available in the control room.</li> <li>• The cleaning checklist (Appendix 3) will be followed and the initialled copy left in the control room for filing by the radiography team</li> <li>• At the end of the day and end of the week additional cleaning is undertaken by the radiography team</li> <li>• After cleaning, the radiographer/scan-op will wash their hands</li> </ul>	
Cleaning of testing rooms and other areas occupied by the participant or researchers	<ul style="list-style-type: none"> <li>• After each scanning participant has left, the researcher will wipe down surfaces using wipes available in the control rooms.</li> <li>• This will include: <ul style="list-style-type: none"> <li>○ Testing/interview room</li> <li>○ Changing room/cubicle</li> <li>○ Toilet (if used)</li> </ul> </li> <li>• The cleaning checklist (Appendix 3) will be followed and initialled</li> <li>• After cleaning, the researcher will wash their hands</li> </ul>	

<b>5. PROCEDURE IF KNOWN/SUSPECTED COVID-19 INFECTED PERSON IN BUILDING</b>		
<b>Risk/Issue</b>	<b>Specific Measures Adopted</b>	<b>Outstanding Actions</b>
Person develops a coughing fit or other symptoms of Covid-19 whilst in the building	<ul style="list-style-type: none"> <li>• If someone develops a coughing fit whilst in the building then they will be asked to stay in the same room until the fit had subsided, and then they will leave and go home.</li> <li>• If anyone develops any symptoms of Covid-19 whilst in the building they will leave, go home and follow university and government guidance on self-isolating, testing, and NHS Test and Trace.</li> </ul>	



	<ul style="list-style-type: none"> <li>If this occurs, we will do a thorough clean of the scanner room and all rooms that the person was in, following <a href="#">latest university guidelines</a></li> </ul>	
An individual who has been involved in the study (participant, researcher) tests positive for Covid-19 and were possibly infectious while in the building.	<ul style="list-style-type: none"> <li>We will perform a thorough clean of the scanner room and all rooms that the person was in, following <a href="#">latest university guidelines</a></li> </ul>	
Ability to track who has potentially been in contact with someone who tests positive for covid-19.	<ul style="list-style-type: none"> <li>The scan registration page for MRI scans will record the researcher, operator and research participant. If there was anyone else who had close contact with that person their name would be entered in the comments section of the scan registration page.</li> </ul>	

6. HEAD OF DEPARTMENT APPROVAL			
<b>Head of Department:</b> (approving risk assessment/work plan)	Kevin Talbot		09/09/2020
<b>Approval Comments</b>			

Appendix 1: Training Record

Name	Read risk assessment (Date)	PPE training (Date)

[OxSTaR Level 1 PPE training](#)

[OxSTaR Level 2 PPE training](#)

Appendix 2 - [OUHT modified resuscitation procedures for adult patients with any risk of COVID-19 infection](#)

Please note, MSD/FMRIB VPN required for accessing Appendix 2 pdf

Appendix 3: Cleaning Checklist

**Magnet and Control Room (Radiographer/Scanner Operator)**

**End of scan - Magnet Room**

	Date, Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Scanner Bore (Magnawand)						
Scanner control panel/s						
Coil and mirror						
Immobilisation sponges						
Table top and rails						
Squeeze ball						
Biopac (if used)						
Hand rails for steps (7T)						
Door handle (both sides)						

**End of study - Control Room**

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Researcher chair/s						
Intercom (carefully around stop button)						
Stim PC keyboards/mice						
Stim PC table tops						
Lanyards						
Control room access door handle (both sides)						

**End of day - Magnet Room**

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
As above						
Tops of hard surfaces (e.g. coil trolley, cabinets)						
Resus trolley top (7T)						
Light switch						

**End of day - Control Room**

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
As above						
Radiographer/scanop chair						
MR console keyboard and mouse						
iMac keyboard and mouse						
Stimulus PC keyboards and mice						
Control room access door handles (both sides)						
Light switch						

**End of week - Magnet and Control Rooms**

	Date, Time & Initials
As above	
Sweep floor	
Mop floor	

### 3T Testing / Changing Area (Researcher/RA)

#### End of scan – Prep Room and Lockers

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Table top						
Pen/s						
Participant and researcher chairs						
Cubicle Chair						
Cubicle door handle (both sides)						
Testing room door handles (both sides)						
Light switch						
Trug (scrubs in blue scrub bin)						
Padlock and key						
Locker front and bottom						

#### End of scan – Toilet

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Flush						
Seat and button						
Handwash dispenser						
Sink and taps						
Door handles (both sides)						
Light switch						

## 7T Testing / Changing Area (Researcher/RA)

### End of scan – Testing Room

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Table top						
Pen/s						
Participant and researcher chairs						
Door handles (both sides)						
Light switch						

### End of scan – Participant Changing Area and Toilet

	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials	Date, Time & Initials
Chair						
Toilet seat and button (and flush)						
Handwash dispenser						
Sink and taps						
Door handles (both sides)						
Light switches						
Trug (scrubs in blue scrub bin)						
Padlock and key						
Locker front and bottom						