



## **Oxford Centre for Clinical Magnetic Resonance Research (OCMR)**

### **Induction Pack**

**For staff, students and visitors working at OCMR**

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Further information is also available on our website [www.ocmr.ox.ac.uk](http://www.ocmr.ox.ac.uk)



## Welcome to OCMR

The purpose of this document is to outline the safety and procedural issues that you need to be aware of when working at OCMR. This document will equip you with the information that you need to work safely within the unit. You should also read and be familiar with all the OCMR Standard Operating Procedures (SOPs), available by following this link: <http://www.ocmr.ox.ac.uk/documents>

At OCMR we strive to make this a pleasant, highly interactive work environment. If you have questions or problems when you begin your work here please do not hesitate to ask any member of staff for help. We hope you have an enjoyable and fulfilling time while working at OCMR.

Happy Scanning!

OCMR Staff Committee



## General Safety and Security Instructions

1. The OCMR scanners are **ALWAYS ON** and can represent a hazard to those who have not been screened for safe entry. In addition there are controlled areas throughout the building where the magnetic field is above 5 gauss. In order to work at OCMR you must attend the FMRIB/ OCMR magnet safety training course at the earliest opportunity. This training must be refreshed annually. Full details can be found on our website <http://www.ocmr.ox.ac.uk/magnet-safety-training>
2. Before admitting anyone into the building please check whether they have a pacemaker or other implantable electronic devices. Magnetic fields represent a serious hazard to those with pacemakers. If a person identifies to you that they have a pacemaker they **MUST NOT** be allowed into the unit and should be asked to wait in the reception area until a radiographer has authorised their entry.
3. If you admit someone into the building it is your responsibility to ensure that they are adequately supervised so as not to represent a hazard to themselves or others. Temporary visitors or undergraduate students must never be left unsupervised in the building.
4. Visitors must only enter controlled areas under the direct supervision of a magnet trained person. Please only admit visitors to the control rooms if the attending scanner operator has given permission. Additionally all visitors entering controlled areas must complete the appropriate screening form prior to gaining entry to the controlled areas. Screening forms are available in reception or via the website.
5. Everyone must be aware of the rules of exclusion that apply to the magnet room as described on the safety screening forms.



6. All external emergency fire exit doors must be kept closed and secured at all times. Paths to and from these doors should be kept clear of obstructions. When not in immediate use the iron gates from the courtyard to the car park must be kept closed and locked. If you open the gates for any reason please contact a member of the admin staff and ensure that the gates are locked before you leave the area.
7. The last person to leave the building is personally responsible for checking that all doors and windows are locked. It is particularly important to check that the basement windows and the lab window are closed and that the door from the workshop to the courtyard is locked. The main reception doors will automatically lock at 6pm Monday – Friday and are locked throughout the weekend (swipe access only).
8. Working alone in the building is only permitted when operating computers or other office equipment. You must never enter a magnet room, the equipment room or workshop when you are alone in the building.
9. You must never disclose door access control codes to anyone who has not undergone magnet safety training. The door access codes will be changed periodically, notification of this will be sent to you via e-mail. You must never give your access card to any other person.



## **Guidelines in the event of a building invacuation / lockdown situation**

An invacuation situation is one where you are asked to stay within the building due to an incident outside, for example if an environmental disaster such as a chemical leak has occurred. A lockdown would occur when an emergency situation is happening outside and the perimeter of the building needs to be secured to protect those within. An invacuation / lockdown can be declared by University or OUH Foundation Trust Security Services, the police or a Departmental representative.

1. In the event of a situation being declared the OCMR Operations Manager will assume the role of incident controller and establish a single point of contact for liaison with OUH Foundation Trust security and emergency services as appropriate.
2. Staff will be informed via e-mail that there is a security alert and they should not leave the building. If you receive such an e-mail you should ensure that all those around you are aware of it and follow the instructions given. Nominated floor walkers will also spread the message around the building.
3. Close all external doors and windows and turn off the air conditioning unit in your office if applicable. Remain calm and await further updates. Nominated floor walkers will keep you informed of the current situation.
4. In the event of an invacuation members of the public and patients will be directed to wait in the reception area or other safe place as directed by the incident controller.
5. In the event of a lockdown the incident controller, security services or the police may request that those in the building move away from all external facing doors and windows, in the event of such a request everyone should gather in the first floor seminar room.
6. Floor walkers will provide assistance to any disabled or vulnerable persons. Please assist all you can if you are asked to help.



7. The incident controller, OUH Foundation Trust Security or the Police are authorised to declare the incident over. This will be communicated to you by the floor walkers and via e-mail.
8. If a person wishes to leave during an evacuation / lockdown situation they should be advised that in the interests of their own safety they should remain in the building. If a person insists on leaving they cannot be prevented from doing so but should be directed to a nominated exit and should leave in a controlled manner. The incident controller should be informed and will assist with this process.

## **Guidelines in the event of a bomb threat, suspicious item or suspect device**

Identify items that should not be there, cannot be accounted for or are out of place

**In the unlikely event that you are handling a suspect package you should place it on a flat surface, DO NOT place it in the corner of a room or in a container.**

### **Actions - if a suspicious object is found**

#### **DON'T**

- Touch or move it
- Open it
- Let others interfere with it
- Touch any light switches

#### **DO**

- Keep calm
- Leave a distinctive marker near (not touching) the suspect package
- Move away from the suspect package



- Try to leave a trail for the emergency services to easily locate the suspect package
- Evacuate to adjacent rooms
- Call the Police (999) and OUH Security Services on the emergency number 4444

### **Actions - if dealing with a confirmed suspicious item/obvious bomb:**

Call the Police on 999 and OUH Security Services on the emergency number 4444.

Move yourself and anyone nearby to an area which is:

- Not in the direct line of sight of the item
- More than 100m away from a small item
- Behind hard cover i.e. a solid object

The Police or Security Services will provide further advice on safe distances, cordons and assembly points

### **Fire Safety Guidelines**

1. It is the duty of all employees to prevent possible causes of fire. The OUH Trust operates a no smoking policy throughout the hospital grounds. All fire exits and fire exit routes must be kept clear of obstructions. Fire doors must be kept closed and not propped open.
2. The locations of fire alarm activation boxes, fire extinguishers and fire exits will be highlighted to you during your building induction (the induction is compulsory for all staff, visitors and collaborators).
3. The fire alarm is a continuous two – tone alarm
4. The fire assembly point is in car park one outside the entrance to FMRIB.
5. The fire alarm is routinely tested at 9am on a Tuesday morning.



6. There will be one full fire evacuation drill per year. You will be notified of this in advance.

## **Fire Alarm Activation**

1. To activate the fire alarm press the centre of any of the red fire alarm activation boxes
2. The fire alarm may also activate automatically if heat or smoke are in contact with the relevant detectors.
3. If you suspect or discover a fire you must activate the alarm and if it is safe to do so also call 4444 – state “Confirmed fire in OCMR, Level 0, John Radcliffe Hospital”
4. If possible contain the fire by closing doors. Evacuate the building by the nearest safe exit or if it safe to do so use a fire extinguisher to tackle the fire.

## **On Hearing the Alarm**

1. Stop all work. Do not continue telephone calls or pause to collect belongings
2. If scanning, remove the subject from the magnet. Escort the subject to the assembly point.
3. If the scanner that you are working on is on fire then press the “emergency power down” and IMMEDIATELY remove the subject from the scanner.
4. Close doors as you leave the building to prevent the spread of fire. Encourage others to leave with you. Fire marshals will ensure that the workshop, toilets and equipment rooms are evacuated.
5. Disabled staff / visitors should be assisted to the nearest fire exit. Fire marshals will assist any disabled persons on the first floor using the evacuation chairs.





6. Do not use the lift in the event of a fire.
  
7. Do not re-enter the building until authorised to do so by the Operations Manager / Fire Marshals.

## Extinguishing a Fire

Most fires can be extinguished easily in the early stages, providing that staff know how to operate the equipment properly. In general persons tackling a fire should place themselves between the fire and the door which provides their means of escape. Staff should always primarily be concerned with saving life but well – judged action with the right equipment may also assist in saving property.

NEVER take a standard fire extinguisher into the controlled areas. Both magnet controlled areas are equipped with magnet safe fire extinguishers these are the only two fire extinguishers within the building which are permitted in the controlled areas.

Full details of the emergency action plan for the building are available on the website:

[www.ocmr.ox.ac.uk/documents](http://www.ocmr.ox.ac.uk/documents)

## Working Out of Hours

The unit does not have a 24 hour security patrol, therefore for your own safety you are not allowed to work alone in the building from 22:00 – 06:00. OCMR is closed overnight and there is no access after 22:00. No scanning is allowed outside the hours 06:00 – 21:00.

Normal office hours for the unit are 08:00 – 18:00 Monday to Friday. You may only work out of office hours if safety precautions are strictly adhered to. Working alone in general office areas is not considered a significant risk. You must **NEVER** work on the magnet if you are alone in the building. The minimum attendance SOP is available on the website ([www.ocmr.ox.ac.uk/documents](http://www.ocmr.ox.ac.uk/documents)).



**If patients / volunteers are undergoing any form of medical procedure other than a scan e.g. cannulation, taking bloods, completing an ECG, then the minimum attendance policy for a category 1 scan applies (refer to minimum attendance policy, SOP OCMR\_004).**

Temporary visitors to the unit, including medical students who are assisting with projects should never work alone in the department. If you are responsible for such a visitor or student you must inform them of this and ensure that they never work alone or unsupervised.

## **Building Security**

The swipe access on both external doors is suspended between 22:00 – 06:00 every day. No entry is permitted between these times and your swipe card will not work. If you require access to the building during these times you should apply to the Operations Manager providing the reasons for the request ([kathryn.lacey@cardiov.ox.ac.uk](mailto:kathryn.lacey@cardiov.ox.ac.uk)). All requests for 24 hour access require authorisation by a member of the OCMR staff committee.

If you wish to access the unit at weekends you can only do this between the hours of 06:00 – 22:00. The external doors require swipe access throughout these times. Swipe access cards are not routinely set to allow weekend access. If you require weekend access you must apply to the Operations Manager.

The afternoon receptionist will routinely check that all windows, external doors and the courtyard gates are secure prior to leaving at 18:00 Monday - Friday. If you are in the building after this time and at weekends you must take responsibility for ensuring that the building is secure before you leave.

## **Accident Reporting Procedures**

In the event of an emergency help can be summoned using the following numbers

- Call 2222 for emergency medical assistance



- Call 4444 in the event of a fire
- Call 4444 for hospital security

When calling for assistance from these services it is important to give the correct location of the unit – Main Building, Level 0, OCMR.

Any safety issues or medical emergencies should be reported to the Safety Officer who will complete the appropriate forms to ensure that the incident is documented and investigated appropriately. The safety officer should also be informed of any near miss incidents, for example situations where someone could have been injured or was put at risk of injury even if no injury actually occurred.

The OCMR Safety Officer is Jane Francis ([jane.francis@cardiov.ox.ac.uk](mailto:jane.francis@cardiov.ox.ac.uk))

## Data Protection Policy

Any personal information (e.g. name, address, date of birth), whether encountered through clinical or research work must be dealt with in accordance with the principles of the data protection act (<https://www.gov.uk/data-protection/the-data-protection-act>). Data which does not contain personal information is not subject to the same restrictions but should still be handled in a careful, sensitive and responsible manner, with care taken to avoid the loss of data.

Special care should be taken with portable media items such as memory sticks, CD's and laptops. Personal information should not be stored on portable media devices.

Any documents containing personal information should remain within OCMR and be kept secure in a locked cabinet or drawer; they should not be left lying around the department.

Electronic documents and data containing personal information should be stored on the High Compliance System; full details regarding use of the high compliance system along with account application forms can be found on the MSD IT website (<http://www.imsu.ox.ac.uk/content/high-compliance-system>). Applications for high compliance accounts should be submitted via the Operations Manager.



If data needs to be taken outside OCMR then personal information **MUST** be removed from the data prior to it leaving the department.

It is important that any presentations given do not contain personal data. This particularly applies to image data that can contain personal information, either on the image itself or embedded within the DICOM header. For still and cine images a non-DICOM based file should be created and used which does not incorporate any personal information into the image.

Clinical data (including scan images and clinical reports) all contain personal information and should remain within OCMR. Clinical reports should be stored only on the designated reporting systems and should not be transferred to personal computers. Hard copies of reports will be stored appropriately by admin staff. Clinical images and reports containing personal information may be transferred within the John Radcliffe site to facilitate patient care. Any image transfers should be completed via Medcon. Great care should be taken when sending clinical reports outside the OUH Foundation Trust. Personal information should be protected at all times.

Disposal of Media – data that is no longer needed must be disposed of in an appropriate manner to ensure that personal information is destroyed. The following methods should be used:

- Paper – should be shredded. There is high volume shredder located in the hot desk office.
- CD's – should be handed to the Operations Manager for destruction.
- Hard Drives, personal computers and other electronic media storage – should be handed to IT staff for destruction.

Encryption – advice on when and how encryption should be used in relation to data can be found on the MSDIT website - <http://www.imsu.ox.ac.uk/content/encryption>

Further information is contained within the CVMed SOP “Data Protection” (CVM\_020\_V2) which can be found on the V drive (V:) Cardio\_Admin (\\RADIUS1\CARDIOV) or send an email to [clinicalresearch@cardiov.ox.ac.uk](mailto:clinicalresearch@cardiov.ox.ac.uk) to request a copy.



## Magnet Safety Instructions

The MRI scanners at OCMR are either 1.5 or 3T superconducting magnets. They are 25,000 or 50,000 times stronger than the earth's magnetic field respectively. The magnets are **ALWAYS ON**. The following procedures must be followed at all times when working within the magnet area.

1. The magnets are within a controlled area which can only be accessed using a door entry code or swipe access. You will only be given the code after you have attended the magnet safety training course. This training must be refreshed annually. Full details of the training can be found at <http://www.ocmr.ox.ac.uk/magnet-safety-training>.
2. The biggest safety concern is the strong pull that the magnet exerts on some metallic items. This includes keys, coins, scissors, wheelchairs, screwdrivers etc. No ferromagnetic item may be taken into the magnet room; these items must be left in the lockers outside the controlled area.
3. All equipment is marked with a sticker to denote its relevant magnet safe status. Items which are clearly marked as not magnet safe must not be taken into the controlled area.
4. Any person, whether visitor or scan subject who wishes to enter the magnet room must be screened using the Magnet Safety Screening form. The procedure is outlined in the SOP Screening subjects for safety to scan, which should be read by all those working within the controlled area.
5. All staff, visiting researchers or collaborators must complete a magnet safety form as part of the induction process. Any subsequent changes which could affect suitability to enter the magnet room, such as surgery or pregnancy, should be notified to the Head of Imaging Applications.



6. In the event of an emergency around the magnet follow the appropriate emergency procedure (posted on the walls of the control room). Make sure that a physicist or operator has been informed.
7. The area around the main doors of all magnet rooms **MUST** be kept clear at all times to enable emergency resuscitation if necessary.
8. The 5 Gauss line extends out of the 3T Trio magnet room into the control room at the front, the corridor and a small part of the workshop at the back and into the admin corridor. There is also an area of 5 Gauss within changing room 2 in the Prisma suite. No person should enter these areas unless they have completed the Magnet Safety Screening form.
9. The equipment room which houses the hyperpolarizer is equipped with a low oxygen alarm. If you hear the alarm you must evacuate the room immediately. You must alert the scanner operators in both magnet rooms.



## OCMR Magnet Area Emergency Guidelines

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### MEDICAL EMERGENCY DURING MRI SCAN

See Emergency Evacuation Procedure

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### FIRE

Remove subject from magnet

Close magnet room door

If the magnet is on fire press the "Emergency Power Down" button

Sound the alarm to evacuate building

Call the Fire Service on 4444

State "Fire in OCMR magnet area, main building, level 0 OCMR"

Senior member of OCMR to advise fire crew on arrival of magnet hazard

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### ELECTRIC SHOCK

Turn the electrical supply OFF

Shout for assistance

Call the Crash Team on 2222

State "Medical Emergency OCMR, Main Building, level 0, OCMR"

Carry out basic life support until medical help arrives

Send someone to open secure door for emergency team

**DO NOT** allow the medical team to bring equipment into the magnet room, evacuate the patient from the magnet into the clinical room

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### OTHER THREATS/EMERGENCIES

Call hospital security on 4444

State emergency type

Give location as "Main Building, Level 0, OCMR"



## Standard Operating Procedures

All scanning carried out at OCMR must comply with the relevant ethical and research governance frameworks. To help you comply with these requirements OCMR has a series of Standard Operating Procedures (SOPs) which set out the necessary guidelines. SOPs are reviewed regularly and are updated as appropriate, therefore it is important that you read the latest version as displayed on our website ([www.ocmr.ox.ac.uk/documents](http://www.ocmr.ox.ac.uk/documents))

Compliance with SOPs and individual project ethics requirements can be audited at any time by responsible individuals from the University or the Trust R&D department.

There are also a series of SOPs relevant to the Division of Cardiovascular Medicine (CVMed), which should be read by all those conducting research within the Division. These SOPs can be found on the V drive (V:) Cardio\_Admin (\\RADIUS1\CARDIOV) or email [clinicalresearch@cardiov.ox.ac.uk](mailto:clinicalresearch@cardiov.ox.ac.uk) to request copies.

## OCMR Laboratory

There is a level 2 laboratory along the back corridor of OCMR for handling, storing and centrifuging blood and other tissues. It is important that anyone using this facility follows the guidelines below. All lab users must conduct a lab induction prior to undertaking any work (this will be arranged during your building induction if applicable).

### OCMR local rules for handling blood, blood products and other human tissues in the laboratory

The following precautions must be taken when human samples are handled.

1. No eating, chewing, drinking, smoking, applying cosmetics or storing of food in the laboratory.





2. Mouth pipetting must not be used under any circumstances for any reason.
3. All workers in the laboratory must cover cuts and abrasions with a waterproof dressing.
4. Wash hands regularly and always before leaving the laboratory.
5. The use of sharps is banned unless there is no alternative. If sharps are used then they must be placed directly into sharps bins for disposal.
6. Sharps bins must be disposed of by incineration as clinical waste.
7. Gloves and lab coat should be worn at all times when handling samples and should be removed before leaving the laboratory.
8. Single use (disposable) gloves must not be reused. In the event of gloves becoming damaged or grossly contaminated the gloves must be discarded, hands washed and new gloves put on.
9. On completion of work, the work station and all equipment must be disinfected thoroughly with Clinell wipes
10. Samples must be centrifuged in sealed safety buckets so that any breakage is contained. If there is a breakage in the centrifuge while it is spinning, the centrifuge should not be opened for 30 minutes to allow any aerosols to dissipate. The sealed bucket should then be taken off and the contents carefully removed – beware of sharp plastic or glass from the breakage. The broken contents should be put into a sharps bin. The centrifuge bucket and adaptors should be soaked in 1% Virkon solution for a minimum of 10 minutes. The Virkon should then be emptied down the sink with plenty of water and the bucket and adaptors thoroughly rinsed and dried before putting back in the centrifuge – beware of splashes.



11. In the event of an accident resulting in a wound, immediately encourage it to bleed by holding under a running tap, wash thoroughly with soap and water but DO NOT SCRUB. Cover with a waterproof dressing. In the event of contamination of skin, conjunctivae or mucus membranes immediately wash thoroughly. Report all such incidents to the unit safety officer.
  
12. If blood is spilled onto a bench or the floor, use the spill kits provided to clean it up. Follow the instructions on the spill kit carefully
  
13. If you have a problem and are unsure what to do contact a member of the OCMR nursing staff or a member of the safety team:
  - Jane Francis (OCMR Safety Officer) Tel: 21869
  - Phil Townsend (CVMed Safety Officer) Tel: 34651
  - Graham Ross (University Safety Officer) Tel: 22789
  
14. Bloods should never be left in office areas, kitchens etc. Once the blood has been taken it should be transferred to the laboratory for storing or processing.
  
15. Accidents MUST be reported to the OCMR Safety Officer (Jane Francis)
  
16. Samples that are placed in the -80 freezer must be recorded on the recording system prior to being placed in the freezer. Any samples within the freezer which have not been correctly recorded or labelled will be destroyed.



## OCMR Safety Induction Signature Sheet

The following procedures require further safety information / training. Please indicate whether any apply to your work in OCMR. You will then be directed to read the relevant SOPs or undertake the relevant appropriate extra training.

Procedure	Tick if appropriate
Blood or tissue sample collection	
Use of laser	
Administration of drugs	
Transcranial Magnetic Stimulation	
Use of lab	
Use of gases	
Use of pain devices	
Use of centrifuge	
Use of -80 Freezer	
Use of -20 Freezer	

Do you intend to take any equipment into the scanner room?

(If yes, please provide full details below. All equipment must be authorised by an OCMR Physicist.)



## Declaration

1. I confirm that I have been given a tour of the OCMR building highlighting the safety and security features of the building.
2. I confirm that I have received an OCMR induction pack which explains the responsibilities of every group member and collaborator working in OCMR.
3. I confirm that I will read the OCMR induction pack in full prior to commencing work in OCMR and agree to abide strictly by the procedures described therein.
4. I confirm that I will read and comply with all the SOPs relevant to my work at OCMR.
5. I confirm that I am aware of my responsibilities for the security of the building and I am familiar with the magnet safety labelling system.
6. I confirm that under no circumstances will I allow anyone else to use my access card or disclose the scanner door access codes.
7. I agree to be subscribed to either the neuro or cardiac OCMR email lists.
8. If my work at OCMR requires entry to any of the controlled areas I confirm that I have attended a magnet safety course and will re-attend on a yearly basis whilst I am working at OCMR.
9. I understand that building access may be withdrawn at any time.

<b>Name:</b>	<b>Signature:</b>
<b>Date:</b>	



## Personal Details Record Form

Name

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University Card Number

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Supervisor

---

Home Address

---

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---

---

Home Telephone  
Number

---

Work Telephone  
Number

---

E-mail address

---

Emergency contact  
(name, relationship and  
contact number)

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### SOP COMPLIANCE RECORD

SOP Number	SOP Title	Version Read	I confirm that I have read and understood the content of this SOP and that this is the most up to date version that I am aware of  Initial below to confirm this statement for each relevant SOP or mark N/A where not applicable.
OCMR_001	MR Scanning		
OCMR_002	Scanner Operator Training		
OCMR_003	Screening subjects for safety to scan		
OCMR_004	Minimum Attendance Policy		
OCMR_005	Dealing with cardiac incidental MRI scan findings		
OCMR_006	Dealing with non-cardiac incidental MRI scan findings		
OCMR_007	Technical development scanning		
OCMR_008	Scanning of patients with MRI conditional pacemakers		
OCMR_009	The use of gadolinium based contrast agents (GBCA)		
WI 001	Gadolinium use in OCMR		
WI 002	Regadenoson (Rapiscan) use in stress CMR		
WI 003	Dobutamine use in stress CMR		
WI 004	Adenosine use in stress CMR		
	OCMR Induction Pack		

I confirm that I have initialled against each SOP that I have read and that I have understood the contents of that SOP. I confirm that I have read all SOPs relevant to my study responsibilities. If my responsibilities change I will read SOPs that become applicable and update this record. I will read new versions as they are published and update this record accordingly

Print Name	Signature	Date

Please forward completed forms to the operations manager: [kathryn.lacey@cardiov.ox.ac.uk](mailto:kathryn.lacey@cardiov.ox.ac.uk)



### For Admin Use Only

	Required? Y/N	Date Completed	Signed
Magnet Safety Training			
COSHH Form			
Building Induction			
Lab and Clinical room induction			
Evacuation Training			

Access required: