

NHS GREATER GLASGOW AND CLYDE



Policy on safe use of mobile communication devices, two-way radios, wireless routers, wireless computers within Healthcare premises.

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1 Preface

It is the policy of NHS Greater Glasgow and Clyde (GGC), to risk assess the use of all mobile communication devices (including mobile phones) and two-way radios in all healthcare areas, in accordance with relevant guidelines and best practice (Section 9). Notices will be displayed in areas where the use of mobile phones, two-way radios and certain other mobile communication devices is prohibited or restricted. This policy will cover all Healthcare premises controlled by NHS GGC. In situations where premises are under joint control with another agency, then a joint agreement will be reached to implement the principles of the Policy.

While technical evidence indicates that the use of mobile phones in patient / clinical areas constitutes a low risk, patients should expect to be treated in a quiet, peaceful environment. The use of camera phones is also a particular issue and as such patient confidentiality is a priority. Local risk assessments can be carried out in conjunction with clinical staff to identify areas where the use of phones may be permitted in certain circumstances.

Stakeholders of this policy include staff, visitors, contractors and patients.

2 Introduction

The reasons for not allowing the use of mobile communication devices in certain areas of the healthcare environment are not solely related to interference with medical equipment. Although there is little evidence of mobile causing direct interference this risk has not been conclusively proven to be negligible. This may change in the future.

For reasons of patient confidentiality, privacy and dignity it is important to prevent mobile camera phones being used to take inappropriate photographs and video recordings.

Mobile communication devices should not be switched on in clinical areas, including wards, unless there are good reasons to do so.

Mobile phones provide a useful method for communication with colleagues, family and friends. They provide an important route for patients to obtain support and increasingly for clinicians and healthcare professionals to access clinical information and guidance. However, there are risks associated with mobile phones and devices, related to

potential electromagnetic (EM) interference, which led hospitals to ban their use initially.

The normal operation of some medical equipment can be disrupted by radio wave transmissions (EM interference) at certain frequencies. This might have fatal consequences if patient-connected equipment is affected in this way. The most likely cause of such disruption is the use of mobile telephones and two-way radios in the vicinity of the medical equipment. Mobile telephones transmit if they are switched on, and able to receive or make phone calls or transfer data; the risk is not restricted to times when they are being used to make a call.

The advent of **camera phones**, has introduced a second constraint in the need to prevent the taking of inappropriate pictures or video. Many phones also have voice recording facilities. It is appropriate to state that such features cannot be used without the consent of all parties concerned. For these reasons it is necessary to place some restrictions on the use of mobile phones, and NHS GGC have prepared this policy in order to achieve a sensible balance between convenience and safety.

Where possible landlines should be used to make telephone calls to and from NHS premises.

3. Restrictions and Risk Assessment

Areas will be designated in each hospital or healthcare premises within which mobile phone use is permitted. In these areas risks from EM interference with medical equipment or the compromising of personal privacy can be kept to a minimum. These areas are likely to include hospital reception areas, non-clinical communal areas, and specially designated rooms/areas. Patients and staff will be encouraged to restrict their use of mobile phones to these parts of the hospital or premises. These areas will be clearly signposted for mobile device or phone use.

The needs of patients to communicate with friends and relatives must be considered, and wards should where possible designate a room in which mobile phones can be used. Some areas may not be able to provide such an area and some patients such as those in isolation may not therefore be able to use mobile phones. Attention must be paid to the needs of such patients whose mobility may be limited. An arrangement may be made for such groups to be given a means of external communication through access to land-lines or cordless phones.

It is also recognized that there is increasing benefit in the use of mobile devices within clinical practice via medical mobile applications ('apps') and calculators. The process for clinicians and health professionals to continue to access these sources of information without increased risk, requires to be considered in the policy.

Examples of areas where mobile phones CAN be used include:

Main entrances and all corridors and offices external to ward areas

Catering and Dining room areas

Administration areas

Estates and Facilities offices

Finance and Records departments

Staff changing areas

REMOVE THIS SECTION - The Medical Equipment Management Service of the Department of Clinical Physics and Bio-Engineering (DCPB) will carry out risk assessments for each hospital or healthcare premises, relating to electromagnetic interference with sensitive electro-medical equipment, and these will identify Restricted Areas where mobile phones and other similar powered mobile communication devices should not be used. Such devices include laptop computers, palmtops and gaming devices fitted with higher power wireless networks such as General Packet Radio System (GPRS), 3G, 4G and High Performance Radio Local Area Networks (HIPERLAN). Such detailed assessments will only be required in areas with sensitive electro-medical equipment. Advice can be obtained through DCPB. For other healthcare areas, generic risk assessments can be undertaken locally without input from DCPB. The risk assessments referred to will be reviewed every 2 years.

Restricted Areas include intensive care units, coronary care units, renal dialysis units, theatres, recovery areas, ward areas; plus outpatient areas and other areas where sensitive electro-medical equipment may be used. All mobile phone use by patients within Restricted Areas is prohibited. Use of mobile devices by staff in the context of clinically related use is permitted only when devices are switched to 'flight mode'. It is acknowledged that in certain circumstances medical staff may require to use mobile phones for communication in clinical areas. Where this is necessary this should be undertaken on the basis of risk, and mobiles should not be used within 2 meters of electro-medical equipment.

Service Directors must ensure that this policy is applied within relevant Healthcare premises and that local staff undertake generic risk assessments in conjunction with Health and Safety staff, to determine where restrictions should be placed on the use of camera phones. The areas where mobiles or devices are prohibited or restricted are likely to include operating theatres, maternity wards, children's wards, open wards and other areas where patient and child privacy must be preserved.

The use of camera and video functionality on mobile devices must comply with the Health Board's Policy on use of cameras, to ensure medical confidentiality and to protect each patient's right to respect for his/her private life (Department of Health (2009), Health Facilities Scotland (2008)).

The Director and the Associate Medical Director of the Women and Children's Directorate will be responsible for an additional risk assessment to determine further restrictions that need to be placed on camera phones to safeguard the welfare of children within all areas managed by this Directorate. This also applies to the lead Director for Specialist Childrens Services (including Child and Adolescent Mental Health Services) within Partnerships.

The areas in which use of mobile phones (and other mobile communication devices) is to be restricted will be clearly signposted and all persons are asked to observe the restrictions. It is essential that mobile telephones are switched off or placed in 'flight mode', and two-way radios not used on transmit mode in such Restricted Areas. If Senior Charge Nurses/Heads of Department are in doubt whether medical equipment in neighbouring areas might be put at risk by mobile telephones or two-way radios in their own department, they should seek the advice of the local / hospital Medical Equipment Management Service. ([hyperlink of contacts to be added](#))

REMOVE THIS BIT - It is the responsibility of all staff to remind anyone they see using a mobile telephone in a Restricted Area that they must comply with this policy, and move to an area designated for mobile phone use or step outside hospital premises if they wish to make a call. If anyone refuses to comply with polite requests the nurse in charge or Ward Manager/Head of Department should be contacted immediately. If polite requests again have no effect, the user should be informed that the rule must be enforced strictly, and given the reason for this, and that the next step will be to ask the individual to leave the premises. Following this staff may alert security and /or the police. A Datix incident

report should be completed in all cases when a mobile telephone has been used in a Restricted Area.

Camera and video functionality on phones: These should not be used to take photographs or video of patients on any Healthcare premises. Where this is requested, this can be undertaken with the permission of the patient and Head of Service. **Specific permission has been granted within maternity suites to allow camera/ video functionality to be used on new borns, at the discretion of the relevant Consultant and to be used for the minimum amount of time necessary.**

Digital European Cordless Technology (DECT) Cordless phones: These may be used by staff, patients and visitors in any area. It should be noted that there is a small risk of interference from cordless phones, and these must not be left on top of or adjacent to, medical equipment, when they are switched on.

Wireless routers, wireless computers, radio tracking systems etc.: These systems may be used by IT and a range of clinical users (e.g. Diagnostic Imaging, Clinical Engineering and the Medical Equipment Management Service) as well as the Hospital Education Service at Yorkhill. These systems are usually used to exchange technical or clinical information. The output power of such devices must be restricted to an absolute maximum of 100 mW so as to reduce the possible risk of interference with medical devices. Furthermore, 100mW fixed transmitters must be located at least one metre from any medical device.

Blue tooth devices: These systems are very unlikely to cause interference under most circumstances and need not be restricted.

Mental Health Services and Forensic Directorate: This Directorate within the Mental Health Services has a policy of prohibiting the carrying of mobile phones into secure ward areas. This must be adhered to in secure areas. Restrictions may apply within Mental Health inpatient facilities related to carrying mobile phones and use of chargers.

Infection Control: It is recommended that mobile phones are cleaned periodically using detergent wipes. (check compatibility of wipes with touch-screen devices.)

Chargers: Local Policies relating to electrical and fire safety risks of chargers will apply.

Voice-over Internet Protocol (VOIP): This technology has been introduced in the NHS GGC Queen Elizabeth University Hospitals and also the ACH hospital sites and currently has limited use wireless handsets. All handsets should have a limited power output of 100mW, to ensure there are no associated EM risks.

Accessing Medically related apps on mobile phones: The accessing of agreed apps on mobile phones or portable IT devices is permitted. These are normally read only apps and where possible the device should be in the flight safe mode.

Exceptional circumstances: In the event of exceptional circumstances such as a switchboard failure, the use of mobile devices may be permitted for communication – this would be communicated through the IT infrastructure eg. StaffNet, where possible.

An explanation of the mobile phone policy for the general public is given in Appendix 1.

4 Responsibilities

Responsibility for implementation and enforcement of the policy will lie with the Director of Human Resources.

REMOVE THIS BIT - Responsibility for ensuring that risk assessments are in place relating to designation of areas where hazards may arise from EM interference with electro-medical equipment within each Healthcare premises will lie with the Head of Service, Medical Equipment Management, DCPB.

Responsibility for ensuring display of appropriate signage in correct locations within individual Healthcare premises will lie with the Director of Facilities for public areas and Service Directors for clinical areas. Locations should be confirmed with the local Head of the Medical Equipment Management Service.

Responsibility for ensuring that risk assessments are in place for the designation of areas relating to the use of the camera component of mobile phones will lie with Clinical Service Directors. This will be undertaken in conjunction with the Head of Health and Safety.

Responsibility for provision of communication arrangements for patients in wards who have limited mobility will lie with the Senior Charge Nurse.

The local Head of the Medical Equipment Management Service (DCPB) may be consulted about the suitability of rooms for designation.

Responsibility for ensuring that wireless routers and computers with wireless connections comply with this policy will lie with the Head of Information Technology for the Health Board.

Responsibility for ensuring that medical equipment containing wireless transmitters comply with this policy will lie with the local Head of the Medical Equipment Management Service.

Responsibility for investigation of suspected instances of electromagnetic magnetic interference with electro-medical equipment will lie with the local Technical Manager of the Medical Equipment Management Service (DCPB).

Responsibility for review of the policy will lie with the Head of Medical Equipment Management and the Head of Health and Safety. Consultation will also take place with the Heads of eHealth and Telecommunications. This policy will be available through StaffNet and all revisions and updates will be available through this route.

All Contractors must comply with this Policy. Where appropriate this document will be issued to contractors prior to commencement of works.

Visitors will be expected to comply fully with this Policy as part of the implicit agreement in entering Healthcare premises.

5 Two-way Radios

Portable radios provide a useful method of communication with colleagues within healthcare premises, for porters and facilities staff. However, there are risks associated with their use, which staff should understand and take necessary steps to avoid. There is a risk that the electromagnetic (EM) signals generated from use of portable radios will interfere with medical equipment. For this reason it is necessary to place some restrictions on the use of mobile communication devices, and NHS GGC have prepared this Policy in order to achieve a sensible balance between convenience and safety.

Areas will be designated in each hospital, within which risks from electromagnetic interference with medical equipment or the compromising of personal privacy can be kept to a minimum. These areas are likely to include hospital reception areas, non-clinical

communal areas, and specially designated rooms/areas. Staff will be encouraged to restrict their use of portable radios to these designated areas. The areas will include those signposted for mobile phone use and will also include other non-clinical areas of the hospital.

The areas in which use of mobile communication devices is to be restricted will be clearly signposted and all persons are asked to observe the restrictions.

Staff using two-way radios will be required to undertake training to promote awareness of associated risks, and compliance with the Policy.

Groups of hospital staff, such as the Hospital at Night team, may need to use mobile communication devices in clinical areas. This must only be undertaken according to an agreed procedure, and training undertaken by all staff members involved. (see Section 7)

The emergency services should be aware of the risk of interference with medical equipment, but they may need to be reminded when on routine visits that they should set their radios to inhibit transmissions in restricted areas. The use of a radio by the police, fire or ambulance personnel during an emergency may be necessary for life saving purposes and risks of interference should be treated as secondary to those associated with managing the incident.

6 Potential Health Effects from the Use of Mobile Telephones

The report from the Independent Expert Group on Mobile Phones under the chairmanship of Sir William Stewart states “the balance of evidence does not suggest that mobile phone technologies put the health of the general population of the UK at risk”.The Stewart Group however concluded that:

“It is not possible at present to say that exposure to radio frequency radiation, even at levels below national guidelines, is totally without potential adverse health effects, and that the gaps in knowledge are sufficient to justify a precautionary approach”.

Consequently, it would be prudent if all mobile telephone users use their mobile telephones as little as possible without compromising their ability to do their work satisfactorily.

7 Hospital at Night Team

The Hospital at Night team will be utilising a combination of pagers and two-way radios for communication. The Policy acknowledges there may be a risk to electro-medical equipment in emergency situations involving the HAN team, and acknowledges that risk as part of an overall risk management strategy.

Training will be provided for the HAN team, as part of induction, to minimise the risks associated with potential EM interference.

8 Policy Summary

- The risks associated with mobile phone use come into two categories:

Those related to patient confidentiality and privacy concerned with the use of **camera phones**

Those related to **EM interference** and the potential to interfere with medical devices

- *REMOVE - High risk areas in terms of EM interference include ITU, HDU, Theatres and recovery areas, wards, outpatients etc – these areas will be assessed and defined by the Medical Equipment Management Service (DCPB) as **Restricted Areas**. Use of mobile phones, GPRS, 3G, 4G, HIPERLAN and two-way radios will be prohibited in these areas. Clinically related use of mobile devices by staff is permitted only when switched to ‘flight mode’.*
- All clinical areas will prohibit or restrict mobile device / phone use due to the potential patient confidentiality and privacy issues. These clinical areas may designate a room where mobiles may be used (eg. Dayroom). The designation of a room will be at the discretion of local management.
- Areas under direct control of the Women and Children’s Directorate and Specialist Childrens Services, will carry out additional risk assessments related to Childrens Services and the risk to patient confidentiality and privacy.

- Non clinical areas such as corridors and dining rooms will permit mobile phone use.
- Appropriate signage will be in place for both Restricted Areas and areas permitting mobile phone use.
- Two-way radios should not be used in any Restricted Areas.
- Specific provision in this Policy has been made for the systems used by the Hospital at Night team.
- Staff should not use personal mobiles within clinical areas.

9 References

Using mobile phones in NHS hospitals, Department of Health, London, January 2009

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_092811

Guidance on the use of Mobile Communication Devices in healthcare premises, Health Facilities Scotland, Edinburgh, February 2008

Mobile phones in hospitals: Frequently asked questions, MHRA, London, July 2006

<http://www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Technicalinformation/Mobilecommunicationsinterference/Frequentlyaskedquestions/index.htm>

Mobile Phones: One liners, MHRA, London, Issue 43, July 2006

http://www.mhra.gov.uk/home/idcplg?IdcService=GET_FILE&dDocName=CON2024051&RevisionSelectionMethod=Latest&noSaveAs=0&Renderition=WEB

Mobile communications interference, MHRA, July 2004,

<http://www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Technicalinformation/Mobilecommunicationsinterference/index.htm>

Safety Notice 2001(06) - Update on Electromagnetic Compatibility of Medical Devices with Mobile Communications: TETRA (Terrestrial Trunked Radio Systems) and Outside media broadcasts from hospital premises, MHRA, London, 2001

Device Bulletin (DB) 1999(02) Emergency service radios and mobile data terminals: compatibility problems with medical devices, MHRA, London, May 1999

<http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins/CO N007355>

Device Bulletin (DB) 9702 Electromagnetic Compatibility of Medical Devices with Mobile Communications, MHRA, London, May 1999

<http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins/CO N007365>

Appendix 1 Explanation of Policy for members of the public

Use of Mobile Phones on Hospital Premises

Mobile phones provide a useful method for communication with colleagues, family and friends. They provide an important route for patients to obtain support and comfort. However, there are risks associated with mobile phones, which led hospitals to ban their use initially.

The main clinical risk is that the electromagnetic (EM) signals generated from use of mobile phones will interfere with medical equipment. The advent of camera phones, has introduced a second constraint in the need to prevent the taking of inappropriate pictures. For these reasons it is necessary to place some restrictions on the use of mobile phones, and the Health Board have prepared a Mobile Phone Policy in order to achieve a sensible balance between convenience and safety. This policy was initially agreed in September 2008 and was last reviewed in April 2011.

Areas will be designated for mobile phone use in each hospital. The risks from EM interference or the compromising of personal privacy within these areas are low. These areas will include hospital reception areas, non-clinical communal areas, and specially designated rooms. Patients and staff will be encouraged to restrict their use of mobile phones to these parts of the hospital. The areas will be clearly signposted for mobile phone use.

Camera and video functionality on mobile devices and phones must not be used in clinical areas.

Mobile phones must be switched off in areas where it is signposted that their use is restricted.

Patients and visitors should consider that for reasons of privacy, they may wish to take certain personal calls away from other patients or visitors.

Use of Mobile Communication Devices by Healthcare Staff

Mobile communication devices provide a useful method for contacting colleagues and for accessing clinically related information and resources, but there are risks associated with their use. The main clinical risk is that the electromagnetic (EM) signals generated will interfere with medical equipment. Therefore, it is necessary to place some restrictions on the use of two-way radios and mobile phones by staff. The Health Board have prepared a policy in order to achieve a sensible balance between convenience and safety.

Within hospital premises areas will be designated, within which risks from EM interference are low. These areas will include hospital reception areas, non-clinical communal areas, and specially designated rooms. The areas will be clearly signposted for mobile phone use and staff should restrict their use of two-way radios or mobile phones to these parts of the hospital, whenever possible. The use of medical applications and resources via mobile devices for clinical reasons is permitted in these areas, only when the devices are in 'flight mode', which reduces the risks of EM interference.

Within other healthcare premises the risks can be defined by considering areas as clinical or non-clinical. Mobile devices cannot be used within clinical areas by patients. Certain exceptions for staff using devices for clinical purposes in clinical areas, are outlined in this policy.

Two-way radios should not normally be used to transmit messages in areas that are marked as restricted for mobile phone use. However, in exceptional circumstances when dealing with emergencies, staff may need to use mobile communication devices in Restricted Areas. Risks of two-way radios interfering with electro-medical equipment may extend to distances of up to 3 m, when the radios are in transmit mode. Therefore, staff should ensure that they are at least 3 m from any patient connected medical equipment before using such a device. Users should remember that the risk of interference may include equipment in adjacent rooms.

Staff should refrain from taking personal calls on mobile phones when dealing with patients or members of the public.

Appendix 3 – Contact details

Contacts within Department of Clinical Physics and Bioengineering (DCPB)

Name	Covering	Contact Numbers
Ted Mullen	Head of Service – Medical Equipment Management	0141 452 3308
Technical Managers:		
Stephen Porter	Glasgow Royal Infirmary, PRM, Gartnavel General	0141 211 5040
David Graham	QEUH, RHC, New Victoria	0141 452 3281
Mark Prentice	Stobhill Hospital, Renal Services, UIES, Community Care Services	0141 355 1673
John Whitters	Dental Hospital	0141 211 9738
Richard Boulton	Princess Royal Maternity	0141 211 5388
Laura Metcalfe	IRH, RAH VoL	0141 314 6815

Health Physics staff

Name	Contact Numbers
Andy Brennan	0141 211 3387
David Gentle	0141 211 3432

Health and Safety Contact

Contact number for Health and Safety Service 0141 278 2700

Telecomms Staff

Karen McSweeney- Telecommunications Manager 0141 240 9391
Stephen Connolly - Telecomms Service Manager 0141 240 9393



MOBILE PHONE AND DEVICES CAN BE USED SAFELY IN THIS AREA

Camera and recording functionality on these devices must not be used to protect the privacy of patients



SWITCH OFF ALL MOBILE PHONES AND DEVICES

This includes laptops, tablets and gaming systems using mobile signals

**THESE MAY INTERFERE WITH NEARBY
MEDICAL EQUIPEMENT**

**NO USE OF PHOTOGRAPHIC OR
RECORDING EQUIPMENT**

Appendix 6 – MHRA Recommendations for restrictions in NHS premises

The MHRA recommendations for use of mobile communications devices are outlined below for information. Risk of interference	Type of communication system	Recommendation
High	Analogue emergency service radios.	Use in hospitals only in an emergency, never for routine communication.
	Private business radios (PBRs) and PMR446.e.g. porters and maintenance staff radios (two-way radios).	Minimise risks by changing to alternative lower risk technologies.
Medium	Cellphones (mobile phones). Terrestrial Trunked Radio System (TETRA). Laptop computers, palmtops and gaming devices fitted with higher power wireless networks such as GPRS and 3G.	A total ban on these systems is not required and is impossible to enforce effectively. Should be switched off near critical care or life support medical equipment. Should be used only in designated areas. Authorised health and social care staff and external service personnel should always comply with local rules regarding use.
Low	Cordless telephones (including DECT). Low power computer wireless networks such as RLAN systems and Bluetooth.	These systems are very unlikely to cause interference under most circumstances and need not be restricted.