LONDON MRI LEADS GROUP

1st meeting - Minutes

Start Date: March 22nd, 2023	**Start Time:** 9:00 am
Location: Online	**Room:** N/A
Last Meeting: N/A	**Next Meeting**: 18th November 2023

Agenda Item	Schedule	Time	Action
Welcome and Introductions	9am	5m	**N/A**
London MRI Leads Forum – Terms of reference	9:05am	30m	**Approved**
Anton S. Quinsten, Bsc. - Senior Radiographer University Hospital Essen - Pioneers of remote scanning	9:35am	15m	**N/A**
Remote MRI scanning	09:50am	15m	**Watch this space**
Interventional MRI – safety aspects	10:05am	15m	**Discussed – no actions**
Utility of ferromagnetic guards	10:20am	15m	**Use is site dependent**
Conditional and non-conditional pacemakers - Procedures	10:35am	15m	**Documents to be shared**
Discussion of upcoming meeting date/time/topics	10:50am	10m	**A.I./international guidelines/safety standardization**

Minutes Prepared By: Erica Scurr – erica.scurr@rmh.nhs.uk

Attendees	Apologies
Samuel Campos de Oliveira - HCA Healthcare UK, The Lister Hospital	**Terence McGuckin** – St. George's Tooting
Carlo Wagner - HCA Healthcare UK, London Bridge Hospital	**Darren Hudson** – Inhealth
Felicity Lacchin – NHS, UCLH	**Amanda Egan** – Nuffield Health Parkside Hospital
Julien Greggio - The Cleveland Clinic	**Karen Simmons** – Royal Brompton
Thachandra Rajan, Abhilash - The Cleveland Clinic	**Becky Davies** – Fortius Clinic
Filippo Bosio – NHS, Guy's & St. Thomas	
Sean Hanna – NHS, King's College Hospital	
Erica Scurr – NHS, The Royal Marsden	
Serena Screto - The London Clinic	
Charles Ansong - Nuffield Health Parkside Hospital	
James Berry - Alliance Medical Ltd	
Patricia Morgan - Medical imaging partnership	
James Brymer – NHS, The Royal Marsden	
Lisa Bida – NHS, UCLH	

Minutes notes

1. **Welcome and Introductions:**

Chair: Samuel Oliveira

Volunteers are required for Vice Chair and secretary, the latter being responsible for taking and distributing the minutes of the meeting. Erica agreed to take minutes for the first meeting to start things off!

(Secretary subsequently to be Felicity Lacchin)

2. **Terms of reference:**

The terms of reference were unanimously approved by the group.

The group agreed on exercising close communication with existing expert groups; BAMRR, MRAG, IPEM, ISMRT, SoR especially with regards to safety policies and procedures.

3. **Preliminary Discussion:**

James Berry has trialed some remote scanning tools in the past. GE digital expert, Siemens Dot Cockpit, and Philips ROCK - amazing training tools but connectivity challenges prohibit use for remote scanning, especially on mobiles due to cost, and in static sites the senior support is already there.

Felicity added that this was an excellent learning tool, rather than for remote scanning and expertise is in place for supporting difficult scanning.
Charles asked if this was a free service and where responsibilities lie. James added that the remote scanning radiographer would be responsible for the quality of the images. Contrast agent administration could be an issue. Staffing skill matrix would need to be considered. The place of remote scanning needs to be balanced against the expense of the systems.

Samuel added that experience in USA and Germany – remote scanning used for, cardiac scanning – one rad controlling up to 3 exams - use HCA's with safety and ILS training.
Even remote breast biopsy can be performed.
Charles expressed concern over changing job roles and even the loss of radiographer jobs. MRI community aware of this.
Safety is the main concern. Felicity advocates the MRSO course and exam – need standardization of generic safety procedures, and gave an example of a site refusing to scan a patient with a loop recorder.
Erica commented on safety out of hours for CES – safety implications…. where we can support people with this group is to sharing generic implant procedures and safe work practices to get some support for staff that do not have physics on site and to have cross site parity.

Reaching wider groups like SoR via MRAG via James and Darren Hudson.

This is the impetus for Samuel forming the group with a future vision of a Chat forum and safety resource and support. Keen to keep the group small initially to establish links then open up perhaps via a study day in the future. We are well connected and can liaise with expert groups such as MRAG, BAMRR, SoR and IPEM as necessary.

4. **Remote scanning:**

An excellent and informative presentation was given by remote scanning pioneer Anton S Quinsten, from University Hospital Essen. The remote scanning service, using Siemens Healthineers virtual cockpit, started in 2016. This was precipitated due to the ever-increasing number of MRI examinations required to be done but with a shortage of skilled radiographers to perform them, but also the ability of radiographers to work from home during the pandemic to keep services going. Thanks to the introduction of this software, remote scanning is routinely used at Essen University Hospital enabling radiographers to provide an efficient and cost-effective scanning service and support to others.

The introduction of remote scanning has transformed the variety of tasks performed by radiographers– from scheduling, preparing, and positioning the patients to running the scans and managing the equipment. In particular, the growing use of artificial intelligence (AI) means that, in the future, radiographers' roles will change further.
Advantages were clear to see in terms of flexibility of the workforce, support for remote or less expert sites and efficient service delivery, however there was concern raised regarding patient communication during the exam. The Essen model has a senior technologist / radiographer and an RDA in physical

attendance during remote scanning sessions. Compared to air traffic controllers – maintaining many flights at the same time – routinely two scans at the same time.
Safety is a priority with education of paramount importance with clear workflow steps.
Other advantages – training of radiographers reduced by half as radiographers trained in the dot cockpit room. Radiologists can share screens live and share experience. Radiographers love to work from home and allows flexibility as well as providing expertise from home.
Patients are able to be scanned locally and be scanned by a remote expert.

Questions:
Radiographers scanning on laptops? This was only to facilitate scanning during the pandemic. The home office today has the same set up as hospital with correct resolution screens and desk set up.

What is the role of the remote radiographer in emergency cases? Cardiac arrest, anaphylaxis, quench? Anton replied that one member of staff is physically present at the console (the patient manager) and the other is the remote scanning radiographer. The patient manager could be a non-radiographer.

Remote scanning rad does not currently have verbal communication with the patient. Next software level. Also questions over communication between on site and off site.
Contrast media managed on site.

Concern over patient contact: Anton described a situation that flexibility of working is allowed so staff rotate through live and remote scanning as per the radiographers' job plan…helps with retention of staff.

AI / dot engines in the future may allow more exams to be done simultaneously in the future.

5. **Utility of Ferroguard metal detection systems.**

It is very much down to departmental design and local policy as to whether these installed devices are useful. Some units advocate strict screening procedures to safeguard the MRI environment and staff due to the tendency for people to 'de-sensitize' to the audible sounds of a ferrous detector. This was also dependent on department design and whether these devices could be placed in an appropriate area. Charles advocated the use of ferro guards from his experiences in America, as a last check in high work flow areas, especially hand-held devices.

6. **Interventional MRI: safety aspects.**

Julien introduced the discussion around safety during interventional procedures. Concern over the safety education and screening of staff.
Samuel described a 'lead for the day' and team brief to ensure safe practices. Regular checking and training of non-MRI staff.
Rebecca described work practices where a member of staff was responsible for monitoring the environment throughout the procedures.

Take home was having a lead control the MR environment and have very clear procedures.

7. **Conditional and non-conditional pacemakers.**

Julien asked if the group could look at simplifying the rules around scanning patients with cardiac devices. Discussion was very much around what kind of facility you are working in, and the level of cardiology support available. Carlo described his experiences in cardiac device scanning.
Solution is to have very clear policies, procedures, and clear responsibilities delegated.
Rebecca in the process of writing and SOP for pacemakers. Erica able to share RMH SOP.
Filippo has conditional and off label procedures to share via Samuels site when ready.

8. **AOB:**

- Felicity - Research associates through UCLH approached her to use AI to vet and protocol instead of radiographers – will feed back to the group.

- Discussion on the impact of AI: Julien to present on the use of AI in cardiac imaging.

- Samuel to engage with Tobias Gilk prior to the next meeting.

- Samuel: Start up group…list like Shellock – hospital in Denmark…bring to next meeting?

Descriptive Actions:

Communication of pacemaker procedures and other documents via the portal.

Final remarks:

Looking forward to the next meeting in November (Which will be after MRI Safety matters conference on 16th September (Barbara Nugent) and BAMRR Conference (October 7th, Chepstow).