

Laboratory skills training for clinical research nurses and research practitioners

- responding to training needs identified in the NIHR Cambridge Biomedical Research Centre

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Background

A large proportion of clinical research studies require the research professionals to obtain biological samples (e.g. blood samples) from their research participants and to process these samples safely, accurately and timely. To do so staff must undertake relevant training and become competent in "lab" skills.

A considerable number of participant-facing Clinical Research Nurses and Research Practitioners work in the NIHR Biomedical Research Centre and the Cambridge University Hospitals NHS Foundation Trust (estimated at over 200). With increasing research capacity on the campus there is a steady stream of new clinical research staff being recruited, most of them needing training in sample and laboratory skills and competencies.

A survey conducted by the NIHR Clinical Research Network, Eastern, in early 2016, identified that there was very little lab training availability for NHS research staff in the Eastern region, including the Cambridge campus.

At the time the only available formal training course (1 day) took place in London - at a cost of £150 + transport per attendee.

The NIHR Cambridge Clinical Research Facility (CRF) has in place a well established formal lab competencies training programme for its own staff. Realising the need for such training amongst the wider local clinical research community, the CRF education team in June 2016 has developed an on-site lab training course and delivers this regularly for relevant local NHS and university staff.



Aim of the course

To equip the learners with the underpinning knowledge and required skill(s) that enables them to safely and accurately handle and process biological samples in clinical research studies.

Outline of the course programme

Lab Skills for Clinical Research Staff

for members of clinical research teams working on the CUH campus who are required to carry out sample processing

Part A (theory)

time	topic
09:00	Introduction and logistics of the course a. Staff new to working in a sample handling room/clinical laboratory visit the sample handling room on the Clinical Research Facility b. Staff not new to processing in a laboratory complete questionnaire relating to health & safety in the lab
09:20	Introduction to Health & Safety. How to ensure you are working in an appropriate preparation area when handling samples, including, - overview of the relevant health & safety legislation and guidance - 11 basic safety rules when working in a laboratory/sample handling room
10:00	Presentation: Safe handling of dry ice Will be followed by a hands-on, practical session and assessment in Part B
10:20	Midmorning break
10:35	Trust policies & procedures relevant to working in sample handling room (e.g. waste management, spillage)
11:00	Safe transportation of biological samples (packing & shipping), incl. safety data sheets and labelling
11:20	Risk assessment - practical exercise
12:00	Confirming bookings for Part B (practical training and competency assessment)
12:10	Finish

Part B (practice training and competency assessment)

Depending on job requirements of the individual learner

Lab training hands-on, scenario-based, interactive sessions in a lab or sample handling setting: delivered in groups of not more than 3 learners at a time

- **Centrifugation of samples and what to do when things go wrong**
- **Safe use and transportation of dry ice**
- **How to use disposable Pasteur pipettes in sample handling**
- **Use of Gilson-principle pipettes**

Course provided by the Education team of the NIHR/Wellcome Trust Cambridge Clinical Research Facility



Outcomes

Since its conception in May 2016 the course has run every 4 months. It is capped at 12 attendees per course which aides the friendly and interactive nature of the course.

June 2016: n = 8 attendees

October 2016: n = 12

February 2017: n = 12

The learners come from a wide range of medical fields and from a large variety of research teams that are based on the Biomedical Research Centre campus. Each new course is adjusted and improved taking into account technical, legislative changes and attendee feedback.

The courses have been free of charge. They have evaluated very well, confirming that the learning needs were met while also providing some enjoyment of the new-found knowledge and skills.

Discussion

By providing an adjustable lab skills training course for research delivery staff on the campus, the Cambridge CRF has met their training needs locally and has also saved each attendee the cost and inconvenience of peak time travel to London as well as the £150 course fee.

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