# Research in Clinical Radiology Training

## 1 Introduction

From August 2012 the Clinical (and Interventional) Radiology curriculum is modified to include a requirement for trainees to be involved in a research activity. The specific statement is:

> All trainees are required to demonstrate an understanding of research methodology and critical appraisal linked to clinical practice. There are various ways in which this can be demonstrated. Trainees should consider undertaking a research project during training. Alternatively, trainees should, with their educational supervisors, develop a research question and a protocol as a theoretical exercise. All trainees should develop their critical appraisal skills and regularly appraise and discuss current research papers – for example as part of regular journal clubs.

The ARCP Decision Aid in the curriculum now requires:

> One research project (actual or theoretical) undertaken during training and discussed with educational supervisor

This document provides guidance to trainees and trainers on the interpretation of this requirement.

## 2 Curriculum Competencies

The curriculum includes a specific set of related research competencies:

> H3 – Ethical Research.

The expectation is that participation in a research project will be a good way to demonstrate achievement of these competencies.

In addition to the competencies outlined in the Ethical Research section of the curriculum, the completion of an outline or actual research project will assist attainment of other generic competencies in the curriculum including:-

- A2 - Working with colleagues
- B2 - Written records
- B4 - Time management & decision making
- G1 - Medical ethics & confidentiality
- G2 - Valid consent
- G3 - Legal framework of medical practice – data protection
- H4 - Evidence based practice
- H5 - Clinical Governance & Audit
- H6 - Information Technology

## 3 Timing

There is no specific timescale defined in the curriculum for acquiring research competencies and therefore the research project may be carried out at any time during training. The inclusion of a research project for all trainees is intended as an introduction to research only and it is hoped that this will encourage Schools to co-ordinate their research activity with the special interest area of the individual trainee. It is therefore likely that the best time for the project would be in ST4, as trainees complete FRCR and move into special interest training.

## 4    Supervision

It is not intended that the Educational or Clinical Supervisor would have to propose and supervise the research project themselves but this could be devolved to others within the training programme who have more research expertise.

Trainees may propose their own project or be guided towards a specific area. Limited participation in a longer-running research project, e.g. taking on a specific role for a period, is acceptable. The intended project should be agreed with the Educational Supervisor, or a specific research supervisor, in advance.

## 5    Support for Research

The College has produced a "Research Recipe Book" to help trainees undertaking research projects: http://www.rcr.ac.uk/content.aspx?PageID=1964

There are sections on:
- How to do a literature search
- How to develop a research question
- Writing a research protocol
- Submitting an ethics application
- How to analyse a dataset
- How to undertake a meta-analysis

## 6    Research Scenarios

Below are some suggestions for the kind of activity that might be undertaken:

- Work on an idea for a research project and discuss this with a supervisor; develop the research question; plan how such a project might be carried out; undertake a literature review, write a project protocol; have an evaluation discussion with a supervisor and document the feedback.
- Join an existing research project and take a defined role in the project for a fixed period, e.g. data collection, analysis. Write a report on your role in the project and discuss this with a supervisor.
- Develop and undertake a small-scale research project from beginning to end; document results as a poster and/or paper for submission.

Any of the sections from the "Research Recipe Book" listed above could provide a suitable basis for an activity to be counted as a research project for the purposes of training.

## 7    Evaluation

The College has created a Research Evaluation form and guidance notes to support supervisors in evaluating and providing structured feedback on the research project. This form will be included in the ePortfolio and should be completed as the record of the project and to provide evidence for ARCP panels. The form is not scored and trainees are not required to "pass" the research project, but it will demonstrate to an ARCP panel the extent to which the trainee engaged with the project and showed understanding of the relevant curriculum competencies.

## 8    Out-Of-Programme Research

Trainees who wish to acquire extensive research competencies, beyond those specified in the curriculum, may take time out-of-programme to complete a specified project or research degree. This would cover the research project requirement for the curriculum.

All applications for out-of-programme research must be prospectively approved. A maximum period of three years out-of-programme is allowed. During this period trainees will be able to gain recognition of continuing clinical competencies. As such the RCR may recognise up to a maximum of 12 months clinical training during this time.

See here for more detailed guidance: http://www.rcr.ac.uk/content.aspx?PageID=955