

Department of Radiography

What skills does a radiographer need?

The life of a radiographer is a varied one, involving many different skills. The following information sheet gives clinical examples of the various skills diagnostic and therapeutic radiographers use on a day to day basis.

At City University we think it is important that you are comfortable telling us about any disability you may have so that we can consider adjustments that are required to enable you to complete your studies and undertake the clinical aspects of your chosen professional pathway. Once we are aware of your disability then we can work towards organising support for your individual requirements.

Reading and Writing

Before undergoing any radiographic examination or radiotherapy treatment the patient must be correctly identified. The radiographer verifies that information gained verbally from the patient concurs with written information in the patient's notes. Any mistake made at this point may result in the wrong person being examined or exposed to an unjustified and possibly dangerous dose of radiation.

Orientation instructions for patient, machine and/or film positioning are critical to accurate and safe clinical practice.

- This information may be numerical. For example in radiotherapy a simple transposition of a rectangular radiotherapy treatment field to treat the upper lumbar spine would result in irradiating the kidneys, organs that are particularly radiosensitive.
- It could also be written information. For example in radiotherapy a treatment area may need to be offset to one side or other of the anatomical midline. If this was done in the wrong direction it would result in a complete geographical miss of the treatment area.
- In diagnostic imaging incorrect labelling of images can result in incorrect surgical procedures being carried out.

Verbal Communication

A patient may need to be given instructions regarding diet in preparation for a diagnostic examination. Written instructions are given but a patient may have

questions. The radiographer then needs to check that the instructions have been adhered to before commencing the procedure. Incorrect bowel preparation could result in confusing appearances that may mimic or cover pathology.

Numeracy

Basic numeracy is required for calculating radiotherapy doses. A clinical oncologist prescribes the patient dose, however the actual dose set on a treatment machine is calculated by the therapy radiographer. Many factors need to be taken into account, such as the patient size and shape, the treatment field size, the direction and number of fields used and many other beam modifications that may be needed to achieve an accurate dose. This process is aimed at maximising tumour dose whilst limiting radiation dose to normal and sensitive tissues than can be permanently damaged if overdosed, for example the spinal cord or eyes.

A diagnostic radiographer may need to override automated settings and calculate an equivalent radiation dose in response to individual clinical needs of patients (e.g. inability to keep still)

Physical

Many patients arrive on trolleys in the department for treatment. They need to be moved from the trolley onto the treatment couch, and usually the radiographer slides the patient across using a sliding board and some bodily force whilst either pushing or pulling.

There are many different pieces of accessory equipment that are used in conjunction with treating or imaging patients which need to be lifted and positioned regularly throughout the day.

The working day

Radiographers usually work from 9.00am to 5.00pm with a break for lunch and sometimes a break mid morning and mid afternoon. Diagnostic radiographers may have to work alone or in an interdisciplinary team outside normal working hours, examining patients throughout the hospital.

Hearing and sight

In normal circumstances radiographers need to be able to distinguish patients' voices above background noise (with a hearing aid if required).

Whilst correctly positioning the patient, the lights in the rooms are often dimmed so that a light field representing the radiation field can be clearly seen by the radiographer. Radiographers often spend much of their working day in dimly lit rooms.

Cross infection

Radiographers work with infectious patients and also with immunosuppressed patients.

City University welcomes applications from disabled students. It is very important that you inform us as soon as possible if you have a disability so that we can discuss any adjustments which may be needed in order to enable you to study and undertake the clinical aspects of your course effectively. If you have any concerns regarding the activities described in this information sheet please call us to discuss it.

Our Disability Co-ordinator, Andrea Kenneally, can be contacted on 020 7040 8806 or at a.kenneally@city.ac.uk and will be happy to discuss the support for disabled students available at the University and will advise you on applying for specialist funding.

Pam Cherry, the Undergraduate Programme Director on 020 7040 5683 can give you advice about any other queries you may have.