

Clinical Technologists and Radiographers in Nuclear Medicine

What are Clinical Technologists and Radiographers?

Clinical technologists and radiographers working in Nuclear Medicine are experts in the use of complex equipment and technologies to help image and treat patients. Both play very similar roles within Nuclear Medicine departments; however they have reached their positions via different training routes.

The work of both requires sound scientific and technological knowledge, a variety of practical skills, a desire to work in a clinical environment and the ability to communicate well with both patients and the multidisciplinary team with whom they will be working.

Their roles will vary from department to department but will include some or all of the following activities:

- People skills, including gaining the trust of patients and explaining complex procedures in everyday language
- Monitoring and reassuring patients during procedures, possibly using specialised skills if working with children
- Preparing the radioactive substances (radiopharmaceuticals) needed for the nuclear medicine procedures, including purifying radioactive materials, calculating correct dosages and disposing of radioactive waste safely
- Administering radiopharmaceuticals to patients, often in the form of injections
- Obtaining images of patients using complex equipment such as gamma cameras, SPECT/CT and PET/CT scanners
- Processing images using specialist computer software
- Presenting processed images to nuclear medicine physicians or radiologists
- Performing or assisting with research projects

There is plenty of scope for both radiographers and clinical technologists to move into teaching, research, quality assurance or management as they progress through their career. Most will work within the NHS, but there are also employment opportunities within industry for more experienced practitioners.

What training is needed?

There are various training routes that will allow you to work in this area of Nuclear Medicine.

- **Taking a BSc degree in radiography.** This will be based partly in the classroom and partly in hospital settings and usually takes three years. Tuition fees and means-tested bursaries from the NHS are normally available. Entry requirements vary from institution to institution, but will include at least one 'A' Level or Scottish Higher in a science such as maths or physics. Successful completion of this degree will allow you to register with the Health Professions Council as a qualified radiographer, after which it is possible to specialise in Nuclear Medicine. Practical experience can be gained by working in a Nuclear Medicine department and an optional two-three year postgraduate qualification or Masters degree can also be taken.
- **Taking a BSc degree in clinical technology.** This can either be done full time with hospital placements, normally taking three or four years or part time whilst working as a trainee clinical technologist in a hospital. Both would include the opportunity of specialising in Nuclear Medicine during the degree. The degree must be accredited by the Institute of Physics and Engineering in Medicine's training scheme (IPEM).
- **Take a postgraduate qualification.** If you already have a degree in another science, it is also possible to train by taking a postgraduate qualification or Masters degree.

Further Information

- The British Nuclear Medicine Society is the specialist society for all professions working in the nuclear medicine field in the UK. Further information can be found on their website at www.bnms.org.uk
- The Institute of Physics and Engineering in Medicine is the UK organisation dedicated to a wide variety of scientific careers within the healthcare sector. Useful careers and training information about clinical technologists can be found on their website at www.ipem.ac.uk
- The Society of Radiographers is the professional body for UK radiographers. General information about careers and training in radiography can be found on their website at www.sor.org while a very informative online leaflet about the various aspects of radiography can be found at www.radiographycareers.co.uk/.
- Information about NHS careers, including clinical technology and radiography can be found on the NHS Careers website at www.nhscareers.nhs.uk/