The role of the radiography workforce in the management and treatment of cancer patients

One third of the UK population will be diagnosed with cancer. An ageing population means that more people are being diagnosed with cancer and this has led to an increasing demand for cancer services.

Radiographers play a vital role in the diagnosis and treatment of cancer patients. Every cancer patient is entitled to timely access to diagnostic procedures, efficient referral to specialist cancer teams, accurate and modern evidence-based treatments and effective follow up care to ensure the best possible prognosis and quality of life.

Effective cancer management starts with prevention, including health education and promotion to the healthy population and those living with a cancer diagnosis after their treatment. Radiographers are well placed to provide this service in the community setting through, for example, mobile breast screening units or a community liaison role, helping healthcare staff understand and manage the side effects experienced by radiotherapy patients after they have finished their course of treatment.

Diagnostic radiographers make a significant contribution to the early detection of cancer, carrying out a range of imaging procedures, for example, non-obstetric ultrasound to support the diagnosis of ovarian cancer, chest x-rays to support the diagnosis of lung cancer and MRI scans to support the diagnosis of brain cancer.

They also play a principal role in cancer screening programmes. The expansion of the NHS Breast Screening programme has led to many radiographers extending their practice to help meet the demand on services, undertaking a range of procedures including reading screening mammograms and assessing screen-detected abnormalities using ultrasound and needle biopsy.

Radiotherapy in the treatment of cancer patients

Radiotherapy is an increasingly important tool in the treatment of patients diagnosed with cancer. The use of radiotherapy to treat a wide range of cancers has grown in recent years and considerable investment is needed to meet current and future demand.

It is recognised that half of all cancer patients will benefit from receiving radiotherapy as part of their cancer management. Radiotherapy is extremely cost effective and is now a significant component of the treatment of 40% of patients who are cured of their cancer. Timely access to radiotherapy leads to improvements in cancer outcomes and survival rates, thus providing further cost benefits.

Therapeutic radiographers use a range of technical equipment to deliver accurate radiotherapy treatments. The accuracy of this delivery is critical to treat the tumour and destroy the diseased tissue while minimising the amount of exposure to surrounding healthy tissue.

New technologies are improving outcomes as well as reducing side effects and sparing the need for extended courses of treatments, reducing overall costs and enabling patients to resume normal work and social activities sooner. Combining radiotherapy with chemotherapy improves results even further and in some centres, therapeutic radiographers have extended their roles to support the specific chemotherapy regimens as well as the delivery of radiotherapy.

Diagnostic and therapeutic radiographers play a vital and unique role in the delivery of diagnostic procedures and cancer treatment services as part of the patient care pathway.
Therapeutic radiographers constitute over 50% of the radiotherapy team, working alongside clinical oncologists, medical physicists and engineers. Clinical practice is undertaken at all levels; assistant practitioner, practitioner, advanced practitioner, consultant practitioner and radiotherapy service manager levels.

They are extensively involved at all stages of the patient’s radiotherapy journey starting at pre-diagnosis, through all the subsequent stages; patient consent, pre-treatment preparation and planning, treatment delivery, patient management during treatment, through to follow up and management and care of patients after treatment has finished. Many are qualified non-medical prescribers and provide effective and efficient toxicity assessment and management of their patients, resulting in significant improvements to the quality of the patients’ experience.

The move to develop the role and competency of the therapeutic radiographer is seen as key to the effective and efficient delivery of national cancer strategies. A growing number of radiographers undertake tumour site-specific or specialist treatment roles where they are responsible for their own patient load from referral, through to post treatment follow up. This continuity of care across the cancer journey benefits individual patients and the service by reducing the number of hospital admissions and gaps in treatment and allowing clinical oncologists to focus their time and expertise elsewhere.

The integration of new radiotherapy technologies is an important aspect of any future focused service and radiographers are leading the delivery of techniques such as image guided radiotherapy and adaptive radiotherapy which require decision making at each treatment to ensure that the optimum personalised treatment plan is delivered accurately. Radiographer-led research studies are evaluating the newer technologies and techniques as part of providing evidence-based practice.

In order to improve patient access, new radiotherapy services are being planned and commissioned across the UK. Many of these are satellite centres and stand-alone units, staffed by therapeutic radiographers with the skills and expertise to provide high quality radiotherapy with minimal daily direct supervision from clinical oncologists.

Summary

Timely access to diagnostic procedures, referral to specialist cancer teams and access to accurate and modern cancer treatments leads to improvements in cancer outcomes and survival rates, providing widespread cost benefits.

Radiotherapy is now a significant component of the cancer patient’s treatment. Diagnostic and therapeutic radiographers play a vital and unique role in the delivery of diagnostic procedures and cancer treatment services as part of the patient care pathway.