

The role of the radiography workforce in gastrointestinal imaging



The Society & College of Radiographers

Gastrointestinal (GI) imaging is a flourishing subspecialty of radiology and is being undertaken by radiographers in many hospitals with little or no radiologist involvement. However, as in all forms of medicine, early diagnosis is essential and specialist radiographers work closely with the GI team to enhance clinical outcomes for patients.

GI imaging involves examining any part of the alimentary tract and often requires the use of a contrast agent to enable the structures to be seen on images. This has traditionally been a barium sulphate suspension which, when it is swallowed, demonstrates the complex mechanism dynamically as it passes from mouth to stomach and through to the small intestine. This enables the diagnosis of pathologies that cause dysphagia such as dysmotility (uncoordinated muscle contractions) and strictures caused by reflux or cancer.

When introduced into the large bowel (or colon) with air or carbon dioxide, a barium enema allows the colon to be examined for the presence of polyps, inflammation and cancer.

Over the last two decades both of these examinations – the barium swallow and barium enema – have become areas of advanced practice for radiographers who carry out procedures previously undertaken by radiologists.

These radiographers demonstrate skills in terms of patient care and technical ability, as well as the underpinning academic knowledge to diagnose and report pathology, from benign conditions (polyps) to malignant ones such as colonic cancer.

This expansion of clinical ability has led to more procedures within the field of GI imaging being devolved to these specialist radiographers who are able to utilise any appropriate modality to enable accurate safe diagnosis.

This includes cross sectional imaging using ionising radiation with a CT scanner or MRI which does not use ionising radiation. Accurate localisation of lesions can allow minimal intervention techniques such as biopsy and percutaneous drainage of collections such as diverticular abscesses. These procedures allow day case attendance rather than prolonged hospital admission or surgery.

Additional training

Many radiographers have undergone training to intubate the small bowel to allow introduction of contrast agents for enteroclysis imaging for conditions such as Crohn's disease, a form of inflammatory bowel disease. This inflammatory pathology can occur in any part of the gastrointestinal tract and has a high incidence in young patients. This examination can be performed using fluoroscopy, CT and MRI to localise lesions.

Radiographers have also been instrumental in helping CT colonography (CTC) rapidly develop into a valuable tool in the diagnosis of bowel disease, producing high quality 3D images and often a first report on the findings. CTC is now recognised as the alternative procedure behind colonoscopy in the Bowel Cancer Screening System (BCSS).

Radiographer-led videofluoroscopy (VF) services have become more commonplace in recent years. VF can examine the swallowing mechanism in real time to determine any

The radiography workforce delivers diagnostic imaging and radiotherapy services in a range of health and social care settings across the UK. Radiographers are pivotal to delivering fast and reliable diagnoses of disease, as well as curative and palliative treatment and care for patients with cancer. A large majority of patients will be referred for imaging during their treatment and radiographers are key to the delivery of successful clinical outcomes.

The Society and College of Radiographers (SCoR) is a professional body and trade union. With more than 90% of the radiography workforce in membership, it represents the entire profession. It shapes the healthcare agenda and leads opinion on a wide range of professional issues, setting standards and developing policies that are adopted and acclaimed by governments and health professionals worldwide.

The SCoR pioneers new ways of working and ensures that its members work in a safe and fair environment. Its activities are designed to ensure that patients receive the best possible care.

The SCoR believes that:

- Every patient must have the right diagnostic examination, at the right time, undertaken by the most appropriate person, using the right equipment to the best possible standard and with timely results to inform the outcome.
- Every cancer patient must be able to be in control of decisions about their care and have access to the most effective treatment, delivered at the right time and by the most appropriate person.

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abnormality that may result in aspiration. This is especially important in the elderly patient suffering from stroke or degenerative mental diseases where, working with speech and language therapists, the patient's management in terms of nutrition and rehabilitation exercises may help minimise the risk of aspiration. Identifying these patients early in their treatment plan can reduce hospital admissions for chest infections.

Experienced GI radiographers provide advice to patients and clinicians, teach all grades of staff and contribute to a fast, seamless, patient-centred service. This includes referral to multidisciplinary team meetings in order to speed up the patient pathway and maintaining compliance for national cancer waiting times.

Summary

Radiographers make a significant contribution to GI imaging services in the UK. Role extension is well established and advanced practitioners are able to examine a more complex group of patients with high levels of expertise.

GI radiographers have adapted and expanded their practice to use the full potential of fluoroscopy equipment and produce optimal quality images in all situations with minimal risk to the patient and positive service improvements including reduced waiting times.

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