

About the RCR

The Royal College of Radiologists supports excellence in medical imaging and cancer knowledge, treatment and care. By setting internationally recognised standards we enable greater confidence in the decisions of clinical radiology and clinical oncology professionals and their patients. We help deliver the best outcomes possible today and continued improvement to meet the needs of tomorrow.

Summary: Workforce shortages need addressing

The increasing workforce shortage among clinical radiologists and clinical oncologists is the number one issue affecting our doctors. In the context of rising demand and increasing backlogs caused by the pause in certain services during the pandemic there are serious concerns regarding comprehensive care for patients.

Imaging is involved in almost every patient pathway – more than one in three A&E patients have a scan before any test.¹ Rapid diagnosis is crucial to ensuring that patients receive optimum care through quicker and more effective treatment. Any delays in diagnosis can have significant impacts on patient outcomes. Early diagnosis remains the primary tool that we have to tackle cancer.

Around 1,000 new cancer cases are diagnosed each day in the UK and one in two people born after 1960 will develop cancer in their lifetime. The NHS England *Long Term Plan* has committed to improving cancer survival by increasing early diagnosis from half to three-quarters and enabling 55,000 more people to survive cancer for five years or more by 2028.

The UK cancer workforce plays a vital role in fulfilling these ambitions. Yet without meaningful and sustained investment to grow the workforce, these ambitions will remain simply that. On top of this, the fallout from COVID-19 has made these targets even harder to achieve, with clinicians seeing significant delays in cancer referrals, diagnosis and treatment.

The issue of workforce is not a new one, nor is it one that will go away until action has been taken. We need more funding, more trainees and more understanding of the pivotal role our doctors play in improving patient outcomes.

We are grateful for the additional training places announced this year – 110 in clinical radiology and 50 in clinical oncology. But we need continued investment to clear the backlog and provide an effective service. We are calling on the Government to continue to fund these additional training places each and every year for the next four years.

Key statistics

- The NHS radiologist workforce is now short-staffed by 33% and needs at least another 1,939 consultants just to keep up with pre-COVID-19 levels of demand for scans and image-guided surgery.
- More than half (58%) of radiology leaders say they do not have enough diagnostic and interventional radiologists to keep patients safe.

¹ Estimates based on RCR analysis of Hospital Episode Statistics (HES) data and Diagnostic Imaging Dataset (DID) data.

- Patients are potentially missing out on cutting-edge, life-saving surgery as half of trusts and health boards (47%) do not have the staff or transfer arrangements needed to run safe 24/7 interventional radiology services.
- Without more consultants in training, investment in new models of care and better staff retention and recruitment, the UK's radiologist shortfall is forecast to hit 44% (3,613 consultants) by 2025.²
- The NHS needs at least another 189 (17% of the workforce) clinical oncologists to meet demand.
- More than half of UK cancer centre clinical directors (52%) say oncologist shortages are negatively impacting patient care.
- Over a ten-year horizon, each extra year of investment in extra training places saves £190 million compared to delivering the increase in WTEs through increased outsourcing and oversees recruitment.
- Maintaining the uplift in clinical radiology and clinical oncology training places would provide potential cost savings of £420 million by 2030.

Backlog exacerbating workforce issues

Problems caused by workforce shortages have been exacerbated by the pandemic as a result of rising waiting lists and ever-increasing demand. Many services were paused when COVID-19 struck; they needed time to implement innovations enabling COVID-19-safe delivery. These changes have meant a reduction in the number of patients a machine can accommodate due to time taken to clean facilities in between appointments.

On top of this, demand for scans has increased, with radiology being at the forefront of the fight against COVID-19, identifying some of the unique attributes of this pernicious disease to enable better diagnosis and treatment.

All of this has meant that the finite resources within our National Health Service have never been more stretched and the workload for our doctors has increased significantly – despite them already being over capacity. We are seeing the effects through increased waiting lists that could cause delays to diagnosis and treatment, especially for patients with cancer.

- As of June 2021, there were **75,000 patients waiting six weeks** or more for a magnetic resonance imaging (MRI) or computed tomography (CT) scan – this is more than three times the number facing this length of wait in March 2020.³
- While overall scanning activity has now returned to pre-COVID-19 levels, it must increase to work through the backlog of patients waiting for diagnosis as a result of the reduction in scans during the pandemic.
- There are still estimated to be around **32,000 ‘missing cancer diagnoses’** – meaning that 32,000 fewer people have been diagnosed with cancer compared to a similar time frame last year.⁴
- The number of people in England starting treatment for cancer in **April 2021 was 24,963**. This is lower than the pre-pandemic average, despite the urgent need to clear the existing backlog.⁵
- Macmillan estimates that the NHS in England would need to work at 110% capacity for 16 months to catch up on missing cancer diagnoses, and for 15 months to clear the cancer

² The Royal College of Radiologists. Clinical radiology UK workforce census 2020 report. London: The Royal College of Radiologists, 2021.

³ <https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/monthly-diagnostics-data-2021-22/>

⁴ https://medium.com/macmillan-press-releases-and-statements/macmillan-responds-to-july-2021s-cancer-waiting-times-data-for-england-c0e7c66f55e7#_edn5

⁵ <https://medium.com/macmillan-press-releases-and-statements/macmillan-responds-to-nhs-england-cancer-waiting-times-for-april-2021-87f3ca6999ae>

treatment backlog.⁶ This estimate does not take into account the time it will take to clear the rest of the imaging backlog.

Additional support for workforce

Equipment

Workforce shortages are compounded by a lack of up-to-date equipment throughout the NHS. The UK has fewer scanners than the majority of comparable countries in the OECD. Previous industry surveys have shown one in ten CT scanners and nearly a third of MRI scanners in UK hospitals are over ten years old – the age at which this equipment can be considered obsolete and must be replaced.^{7,8,9,10} Similarly, one-fifth of radiotherapy machines are over the recommended ten-year lifespan.¹¹

All equipment upgrades need to be supplemented with funds to cover installation costs (which can be as much as the equipment itself) and maintenance costs. Equipment upgrades must also be accompanied by any necessary upgrades in software, as well as the IT hardware needed to run it.

An investment of £392.5 million is needed to replace outdated diagnostic equipment and to meet the expected rise in demand.¹² In addition, £140 million must be invested to address the backlog in machine replacement costs. The RCR also estimates that capital expenditure for a UK-wide rolling radiotherapy equipment replacement programme, including linear accelerators (LINACs), brachytherapy machines and CT and MRI planning machines would cost approximately £87.3m per year.

What the RCR is calling for

Funding is urgently required to boost the number of training places to begin to address the shortfall in the clinical radiology and clinical oncology workforce. We very much welcome the temporary increase in training places that has been granted this year, which will allow for 110 more trainees in clinical radiology and 50 more in clinical oncology. However, this temporary increase will not be enough to future-proof the long-term viability of the workforce. We need this increase to become permanent for at least the next four years if we are to begin to address the large workforce crises.

There must also be sustained investment in wider team members including radiographers and healthcare scientists for radiology and medical oncologists, therapeutic radiographers and specialist nurses for oncology alongside additional admin and clerical staff.

Our specialties in detail

Clinical radiology

Clinical radiologists use medical imaging techniques to investigate, diagnose, treat and monitor diseases and injuries. Interventional radiologists – a subspecialty of radiology – use image-guided techniques to carry out minimally invasive procedures, improving patient experience and reducing hospital stays.

Prior to the COVID-19 pandemic, NHS hospitals in England were carrying out more than 122,000 scans every day. Demand for imaging is rising, driven by a growing and aging population, increased

⁶ <https://medium.com/macmillan-press-releases-and-statements/macmillan-responds-to-nhs-england-cancer-waiting-times-for-april-2021-87f3ca6999ae>

⁷ OECD.Stat. Available at: stats.oecd.org (last accessed 24/09/20).

⁸ Association of Healthcare Technology Providers for Imaging, Radiotherapy and Care (AXREM). AXREM Aged Asset Article. London: AXREM, 2017. Available at: <https://www.axrem.org.uk/wp-content/uploads/2017/08/AXREM-Aged-Asset-Article-CTMR280717.pdf> (last accessed 01/12/20).

⁹ Clinical Imaging Board. Magnetic resonance imaging (MRI) equipment, operations and planning in the NHS: Report from the Clinical Imaging Board. London: The Royal College of Radiologists, 2017.

¹⁰ COCIR. Medical imaging equipment: age and profile density, 2019 edition. Brussels: COCIR, 2019.

¹¹ The All-Party Parliamentary Group for Radiotherapy. Transforming Radiotherapy: A six-point Covid-19 recovery plan to save lives and save money within the NHS. 2020.

¹² The Royal College of Radiologists. Comprehensive Spending Review (CSR) Submission. 2020. Available at: www.rcr.ac.uk/sites/default/files/final_csr_submission_for_upload.pdf (last accessed 07/12/20).

screening and new and updated clinical guidelines. Imaging will also play an essential role in delivering the NHS *Long Term Plan's* commitment to see three-quarters of cancer patients diagnosed at stages 1 and 2 by 2028.¹³

Clinical oncology

Clinical oncologists deliver all types of non-surgical cancer treatment and are the only medical specialty qualified to deliver radiotherapy.

Over half the people in the UK born after 1960 will have cancer at some point in their lives.¹⁴

Radiotherapy is a common and effective treatment for cancer, with nearly half of cancer patients having radiotherapy at some point.¹⁵ Radiotherapy is highly effective in treating cancer – around 40% of patients who are cured of their cancer receive radiotherapy as part of, or the whole of, their treatment.¹⁶

Contact

For more information, please contact Taidgh Pledger, Public Affairs Officer,
Taidgh.Pledger@rcr.ac.uk

¹³ NHS England. The NHS Long Term Plan. NHS England, 2019.

¹⁴ Smittenaar CR, Petersen KA, Stewart K et al. Cancer incidence and mortality projections in the UK until 2035. *British Journal of Cancer* 2016. 115(9):1147-1155.

¹⁵ Cancer Research UK. What is Radiotherapy?. Available at: www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/radiotherapy/about (last accessed 01/12/20).

¹⁶ NHS England. Modernising Radiotherapy Services in England – developing proposals for future service models. NHS England, 2016.