

## Written evidence submitted by The Royal College of Radiologists (RCR) (ECS0027)

### About the RCR

The Royal College of Radiologists (RCR) is the professional membership body for doctors specialising in the fields of clinical radiology (including interventional radiology) and clinical oncology. We provide leadership to improve the standard of medical practice and training across both disciplines.

We engage with our Fellows, members and multiple clinical partners, combining the latest research to improve training and the development of guidelines to support clinical radiology and clinical oncology patient care. This enables us to effectively educate and support doctors throughout their career by providing practical guidance and supporting individuals and their clinical services to facilitate better patient outcomes.

### Introduction

We welcome the opportunity to provide reflections to the Health and Social Care Committee on progress made towards the Government's commitments in the area of cancer services in England. Below we set out our views on each of the four areas of reflection: Workforce, Diagnostics, Living well with and beyond cancer and Innovation and technology.

### Workforce

The RCR welcomed the aims of the Cancer Workforce Plan and its ambitions to deliver the right number of skilled staff who can provide high quality care to cancer patients throughout their treatment process and beyond.

There have been noticeable steps towards those ambitions in the past two years; indeed, as HEE's update on 'Phase 1' highlights, both Clinical Radiology (CR) and Clinical Oncology (CO) training posts remain highly desirable and filled<sup>1</sup>. Furthermore, there have been positive steps in addressing persistent workforce shortages that are the root cause of NHS pressures. Increases in the annual training places available for CR and CO have been funded for 2021 and 2022 – 110 and 50 respectively, 20 for the additional year of Interventional Radiology (IR) training and 5 posts for 6th year training in nuclear medicine for radionuclide radiologists – and they will start to address historic shortages and benefit our health service in the long term.

However, there is a significant workforce gap and it will take considerable time to catch up. The new funding is welcome, but it will take many years of continued increased funding for training numbers to increase the required workforce for it to realise the ambitions set out in the Cancer Workforce Plan and other wider NHS plans. Our 2020 census showed there is currently a shortage of nearly 2,000 CR (33%) consultants and this is estimated to rise to over 3,500 (44%) by 2030 if continued investment isn't made<sup>2</sup>. For Clinical Oncology there is currently a shortfall of nearly 200 consultants (17%) and rising to 400 (29%) by 2030<sup>3</sup>.

It is also worth noting that investment in training places does not directly translate into increased numbers of full-time workers as many trainees will do their training part-time and once in the workplace, may take time out to have a family, travel, take up further study, research or may choose to work flexibly or part time.

Increasing CR and CO trainee places in a sustained, long term way, is essential to mitigate the number of part-time trainees and the overall workforce shortages. These workforce pressures are only going to be compounded by the fact that demand for radiology and oncology is estimated to increase annually by 4% and 3% respectively, as imaging is involved in almost every patient pathway and cancer becomes ever more prevalent<sup>4</sup>. This is based on the steady annual increase in demand of 7% for CT and MRI scans<sup>5</sup>, 8% for systemic anticancer therapy (SACT) and the fact that by 2025 the proportion of cancer patients receiving radiotherapy will increase from 50% to 60%<sup>6</sup>. This workload will only increase at an even greater rate with the ambitions of the cancer workforce plans.

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<sup>1</sup><https://www.hee.nhs.uk/sites/default/files/documents/Cancer%20Workforce%20Plan%20phase%201%20progress%20update%20FINAL.pdf>

<sup>2</sup> [https://www.rcr.ac.uk/system/files/publication/field\\_publication\\_files/clinical-radiology-uk-workforce-census-2020-report.pdf](https://www.rcr.ac.uk/system/files/publication/field_publication_files/clinical-radiology-uk-workforce-census-2020-report.pdf)

<sup>3</sup> [https://www.rcr.ac.uk/system/files/publication/field\\_publication\\_files/clinical-oncology-uk-workforce-census-2020-report.pdf](https://www.rcr.ac.uk/system/files/publication/field_publication_files/clinical-oncology-uk-workforce-census-2020-report.pdf)

<sup>4</sup> Clinical Radiology Workforce Census 2020 and Clinical Oncology Workforce Census 2020

<sup>5</sup> Ibid

From our own research we also know that investing in training places is a cost effective way of growing the workforce. Our modelling suggests that investing in training places would save £420 million by 2030 through savings in overseas recruitment and outsourcing<sup>7</sup>. This is a substantial saving which would allow for investment in other areas.

We recognise that overseas recruitment is an important aspect of the NHS workforce and indeed our organisation has dedicated staff to help with their General Medical Council registration. However, the figures speak for themselves in that increasing overseas recruitment and a doubling of outsourcing would only meet 56% of the CR shortfall by 2030 and for CO it is only 8%.

It is also important to mention the wider imaging team and in particular radiographers. These professionals play a vital role in the imaging and diagnostic process. It is therefore worrying at a time of shortages for CR and CO that the Society of Radiographers found that the radiotherapy radiographic vacancy rate grew from 6.1% in 2018 to 7.7% in 2020, which is the highest vacancy rate since records began in 2012. Additionally, Thames Valley and Wessex are worst hit in England by vacancy rates of 17.4%<sup>8</sup>. In order to achieve the cancer workforce, and wider workforce, ambitions, the training pipeline for radiographers needs to increase through both the traditional and apprenticeship routes.

Furthermore, there are some concerning initial findings from our upcoming 2021 oncology census. For example, 90% of Heads of Service are concerned about the continued availability of specialty site-specific expertise and 88% are concerned about treatment delays<sup>9</sup>. This, coupled with 66% believing that workforce shortages are affecting the quality of patient care, a rise from 51% in 2020, only reinforces the need to ensure we are investing in workforce<sup>10</sup>. Even these figures do not tell the whole picture; there are some areas of the country in more dire need than others. When these figures are analysed at an England regional level, the East Midlands and West Midlands had the highest level of concern, with 100% of Heads of Service concerned about cancer centre patient care<sup>11</sup>.

## Diagnosics

It is a difficult time for the NHS as a whole, but diagnostics, imaging and interventional radiological procedures are particularly struggling as a result of immense strain due to pandemic restrictions and the backlog of care created by it. The RCR is therefore wholly supportive of the government's ambition to transform diagnostic services in England by investing in Community Diagnostics Centres (CDCs).

We welcomed the £2.3 billion investment from the Chancellor in the 2021 Comprehensive Spending Review to create at least 100 CDCs and a further £2.1 billion for innovative use of technology to bolster connectivity between all care settings<sup>12</sup>. As Sir Mike Richards argued in his 2020 diagnostics report, CDCs can aid the rapid assessment of patients with cancer symptoms and help patients receive the treatment they need faster<sup>13</sup>.

Whilst the RCR supports the ambitions of the CDC programme we recognise there are areas that need addressing in order to ensure they work optimally. As highlighted above a major concern for workforce numbers remains and this will be a major obstacle to fully and effectively utilize the centres whilst also ensuring there is staff to continue diagnostics and imaging in hospitals and other care settings. Sir Mike Richards advised the following back in 2020<sup>14</sup>:

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<sup>6</sup> Ibid

<sup>7</sup> WPI Economics. Understanding the impacts of investing in training for clinical radiology and clinical oncology. London: WPI Economics, 2021. <https://www.rcr.ac.uk/press-and-policy/policy-priorities/workforce/why-we-need-investment-radiology-and-oncology-trainees>

<sup>8</sup> [https://www.sor.org/getmedia/94f80de1-d982-4a3d-83b9-0ab1215630a6/CoR\\_radiotherapy\\_radiographic\\_workforce\\_uk\\_census\\_2020\\_report\\_v2-21062021](https://www.sor.org/getmedia/94f80de1-d982-4a3d-83b9-0ab1215630a6/CoR_radiotherapy_radiographic_workforce_uk_census_2020_report_v2-21062021)

<sup>9</sup> 2021 Royal College of Radiologists Clinical Oncology workforce census – yet to be released but figures and data available on request.

<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> <https://www.rcr.ac.uk/posts/rcr-responds-autumn-budget-and-spending-review>

<sup>13</sup> <https://www.england.nhs.uk/wp-content/uploads/2020/11/diagnostics-recovery-and-renewal-independent-review-of-diagnostic-services-for-nhs-england-2.pdf>

<sup>14</sup> Ibid

Imaging workforce	Additional requirement
Radiologists	2,000
Advanced practitioner/ reporting radiographers	500
Radiographers	3,500
Assistant practitioners	2,500
Admin and support staff	2,670
Physicists	220

It is also important to reinforce the point that we cannot ‘rob Peter to pay Paul’ by simply moving workforce from hospital settings to CDCs as this will put even more strain on hospitals’ A&E departments and increase wait times and threaten targets. CDCs must be supported by a sustainable workforce growth – from clinical radiologists to receptionists. Without this they will not work to their full potential and reduce waiting times for patients. As outlined above, continued investment in training places and expanding the workforce for both medical and admin staff is fundamental.

Investment in equipment is also key to success as only up to date apparatus will allow the imaging team to carry out their work in a timely manner and also share them across the health system. At the same time, scanners and equipment in hospitals are too often old, outdated and cumbersome to use and it is critical that we see significant investment in this area. The Radiology ‘Getting It Right First Time’ report detailed the risks associated with old equipment, they conclude that old equipment is less reliable and more likely to break down, causing unnecessary delays for patients and impacting on the patient pathway<sup>15</sup>. They highlight that newer equipment uses less radiation, produces imaging outputs faster and integrates into IT more easily<sup>16</sup>. One in ten CT scanners in UK hospitals are over ten years old<sup>17</sup> ; upgrading this kit has to be a high priority. Sir Mike also advocated for CT scanning capacity to be expanded by 100% between 2020-25 in order to keep up with demand<sup>18</sup>, we are already 2 years into that period and progress is incredibly slow.

Regarding the question of a faster diagnosis standard, the COVID-19 pandemic has had a damaging effect on cancer. Macmillan Cancer Support estimated there were 50,000 missed cancer diagnosis between March and August 2020 and in England alone 30,000 fewer people started treatment compared to the same period in 2019<sup>19</sup>.

Data for time taken to diagnose cancer and see a specialist were improving in 2021, however targets have begun to fall back and the latest figures from November 2021 were very concerning. In November for the third month running, there was a new record high (55,000) for the number of people waiting more than 2 weeks to see a specialist.<sup>20</sup> Additionally, figures for people waiting more than a month to start treatment after a decision to treat were the second highest on record in November at nearly 2,000 people, and the number of people starting treatment is more than 31,000 lower than expected<sup>21</sup>.

Analysis from Macmillan estimates the NHS would need to work at 110% capacity for 17 months to catch up on missing cancer diagnosis and over 12 months to clear the treatment backlog<sup>22</sup>.

<sup>15</sup> <https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2020/11/GIRFT-radiology-report.pdf>

<sup>16</sup> Ibid

<sup>17</sup> 2017 Association of Healthcare Technology Providers for Imaging, Radiotherapy and Care (AXREM). AXREM Aged Asset Article. London: AXREM, 2017. [https://www.axrem.org.uk/wp-content/uploads/2017/08/AXREM-Aged-Asset-Article-CTMR280717.pdf%20\(last%20accessed%2001/12/20](https://www.axrem.org.uk/wp-content/uploads/2017/08/AXREM-Aged-Asset-Article-CTMR280717.pdf%20(last%20accessed%2001/12/20)

<sup>18</sup> <https://www.england.nhs.uk/wp-content/uploads/2020/11/diagnostics-recovery-and-renewal-independent-review-of-diagnostic-services-for-nhs-england-2.pdf>

<sup>19</sup> <https://www.macmillan.org.uk/about-us/what-we-do/we-make-change-happen/we-shape-policy/covid-19-impact-cancer-report.html#:~:text=Macmillan%20estimates%20that%20across%20the,cancer%20diagnosis%20than%20in%202019>

<sup>20</sup> <https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2022/01/Cancer-Waiting-Times-National-Time-Series-Oct-2009-Nov-2021-with-Revisions.xlsX>

<sup>21</sup> [https://medium.com/macmillan-press-releases-and-statements/macmillan-responds-to-november-2021-cancer-waiting-times-data-for-england-f381b9271c8d#\\_edn1](https://medium.com/macmillan-press-releases-and-statements/macmillan-responds-to-november-2021-cancer-waiting-times-data-for-england-f381b9271c8d#_edn1)

<sup>22</sup> Ibid

## Living well with and beyond cancer

Continued care and surveillance for cancer survivors is of paramount importance to ensuring that cancer recurrence is picked up at the earliest stage. For breast cancer alone the American Cleveland Clinic estimates survivors have a 3-15% chance of breast cancer recurrence within 5 years of a lumpectomy and 10 years of also having radiation therapy<sup>23</sup>. There are some positive signs already in England, for example with an estimated 112,000 surveillance colonoscopies undertaken for those considered to be at a high risk of developing cancer in 2018/19, of which 55,000 were conducted following screening. But there is a worrying move to suggest that some follow up appointments can be done remotely as NHSX suggest 70% can be done by phone or video<sup>24</sup>. Radiology appointments are, by their nature, face to face so follow up need to be considered carefully and tailored to the tumour site and individual patient needs. Hence a blanket recommendation that 70% of follow up appointments can be done remotely is not an approach we would recommend. While some routine follow up appointments may not be required and hence moving to video consultations is not necessary, others need a face to face appointment. This must be considered in conjunction with surveillance screening such as mammography.

As we expand the CDC programme and improve equipment across care settings, we must ensure that there are sufficient numbers of clinical staff who have the time to perform surveillance whilst also coping with demand from new cancer patients. Workforce investment is key to that ambition.

Additionally, Interventional Radiology (IR) using minimally invasive treatments has grown in importance over the last 25 years, treating an increasing number of patients across several specialties including becoming integrated into the management of several types of cancer. These treatments replace and or compliment traditional surgical techniques. But despite their growing need we are concerned that we are lagging behind demand as our workforce census found that nearly half of trusts and health boards did not provide adequate 24/7 IR services in 2020<sup>25</sup>. It is also worrying that our census estimated that for all trusts and health boards to have the minimum of 6 IR consultants, an additional 364 IRs are needed – which equates to a 35% shortfall<sup>26</sup>.

Investment in IR training is therefore critical at this time and would play an important part in ensuring we are providing the best possible care to cancer patients.

## Innovation and technology

As mentioned above, IT infrastructure across the country is patchy and can cause issues with sharing images across networks and when patients move from one hospital setting to another. The RCR supports ways to bolster connectivity and, as we highlighted in our submission to the 2021 Comprehensive Spending Review, NHS England's strategy to establish 18 imaging networks by 2023 is an essential part of that. We advocate £150 million being ringfenced to support their creation and fund the necessary IT alignment.

Furthermore, the Quality Standard for Imaging (QSI) has been developed by the RCR and its partners to support patient orientated imaging services and it provides a quality benchmark for emerging networks to deliver improved patient access. To support standards for imaging networks and enable quality delivery, the QSI standard should be funded in full at a cost of £9m. The RCR has also worked to innovate 'Fail-Safe' standards to help develop fail-safe back-up mechanisms to prevent incidents and ensure all parts of the radiology reporting system are undertaken as quickly as possible<sup>27</sup>. The RCR and its elected officers continue to review these standards and work towards improving timely and effective reporting. In support of this the IREFER evidence based guidelines are being developed by the RCR to support the best and most appropriate utilisation of radiology departments.

Innovation is carried out by people, a workforce that can test, adapt and drive ground breaking change. Therefore, innovation is inextricably linked to the fully funded workforce of clinicians mentioned above,

<sup>23</sup> <https://my.clevelandclinic.org/health/diseases/8328-breast-cancer-recurrence>

<sup>24</sup> <https://www.nhs.uk/key-tools-and-info/digital-playbooks/cancer-digital-playbook/using-digital-follow-up-assessments-to-reduce-unnecessary-face-to-face-appointments/>

<sup>25</sup> [https://www.rcr.ac.uk/system/files/publication/field\\_publication\\_files/clinical-radiology-uk-workforce-census-2020-report.pdf](https://www.rcr.ac.uk/system/files/publication/field_publication_files/clinical-radiology-uk-workforce-census-2020-report.pdf)

<sup>26</sup> Ibid

<sup>27</sup> [https://www.rcr.ac.uk/system/files/publication/field\\_publication\\_files/bfcr164\\_failsafe.pdf](https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr164_failsafe.pdf)

namely academic trainees for both clinical radiology and clinical oncology. If we are to improve innovation, strengthen our ability to run world leading clinical trials and drive future cancer imaging innovation, we need to invest in and futureproof our workforce.

Lastly, innovation is underpinned by the equipment that is used by the system. As already referenced, imaging and radiotherapy equipment in England, and the UK as a whole, is aging rapidly and threatens improvement. For example, 1 in five radiotherapy machines are older than their recommended 10 year lifespan<sup>28</sup> and as of March 2021 approximately 63 Linear Particle Accelerators (LINACs) in routine National Health Service use were also aged 10 years or more<sup>29</sup>. As stated above, updating these old machines and ensuring all care settings, including hospitals and CDCs, have the latest equipment is essential to innovation. Innovation simply won't be possible if old equipment is being used in conjunction with new software systems that bypass old technology.

Whilst the cancer drugs fund (CDF) provides an established mechanism, including funding, for rapidly introducing new cancer drugs, there is no equivalent for new radiotherapy techniques, such as stereotactic ablative radiotherapy (SABR) which can reduce side effects and improve cure rates, or radionuclide therapy which will significantly expand in the next few years (reference molecular radiotherapy doc). Facilitating rapid access to innovative therapies requires funding through commissioned pathways as well as comprehensive training programmes to ensure safe deployment.

### **In conclusion**

To conclude, we are in support of the ambitions of the program and there has been some progress against the government's plans with regards to improving cancer care and outcomes. However, we still have serious concerns regarding workforce numbers, equipment and technology which will hamper the drive to achieve the long term goals. We urgently need a long term plan for a fully funded workforce and a continued programme of renewal which uses the advantages of technology in order to improve cancer care.

### **Contact**

For more information, please contact Oliver Clark, Policy Advisor

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<sup>28</sup> <https://www.ipem.ac.uk/Portals/0/APPGRT%206%20point%20plan.pdf?ver=2020-07-06-111730-883>

<sup>29</sup> <https://questions-statements.parliament.uk/written-questions/detail/2021-07-13/32554>