

Migration Advisory Committee

Shortage Occupation List – consultation December 2018

Evidence summary

The work of clinical radiologists is essential for the effective diagnosis of disease and injury. However, the workforce is unable to keep up with the scanning workload: the UK is currently short of more than 1,000 consultant radiologists, and this is forecast to increase to 1,600 within five years. Demand for imaging services is also increasing as a result of factors such as a growing and aging population, a greater emphasis on early diagnosis and screening programmes and a rising demand for interventional radiology procedures. In particular, demand has grown for complex imaging, which takes longer to interpret and report. In this context, workforce shortages pose risks to patient safety and have forced stretched NHS services to spend £116m on outsourcing and insourcing in the financial year 2016/17¹. As such, there is little doubt that the radiology workforce must be expanded.

Cancer Research UK's report 'Full Team Ahead' highlights the importance of having an adequate UK oncology workforce. There are more than 360,000 new cancer cases in the UK every year – a figure projected to increase to 422,000 by 2022. In addition, cancer treatment is increasingly personalised and complex, and more people than ever are living with cancer². However, the workforce has not been growing at the same rate as demand for treatment, and without significant change to the supply or the demand of delivery of cancer services, shortfalls across the clinical oncology workforce will continue³. Staff shortages have been identified as a barrier to providing effective cancer treatments and excellent patient care, and can result in issues such as insufficient capacity to undertake clinical research, worse patient experience and missed opportunities for service improvement⁴. If the UK is to deliver cancer outcomes that are among the best in the world then the oncology workforce must increase accordingly.

In order to address these challenges, the following job titles must remain on the United Kingdom Shortage Occupation List (SOL):

- consultants in clinical radiology (2211)
- health and care professions council registered diagnostic radiographer (2217)
- nuclear medicine practitioner (2217)
- radiotherapy physics practitioner (2217)
- radiotherapy physics scientist (2217)
- sonographer (2217)
- nurses (2231)

In addition, the following job titles should be added to the United Kingdom SOL:

- consultants in clinical oncology (2211)
- non-consultant, non-training, medical staff post in clinical radiology (2211)
- non-consultant, non-training, medical staff post in clinical oncology (2211)
- medical physicists for imaging (2117)
- medical oncologists (2211)
- pharmacists (2213)
- health and care professions council registered therapeutic radiographer (2217)

Definitions

Clinical radiologists are specialist doctors who can interpret all types of medical images in order to detect and diagnose disease and injury. **Interventional radiologists** use image-guided, minimally-

invasive techniques to target therapy. Interventional radiology is a sub-specialty of clinical radiology, and as such falls within the wider category of 'radiologist' in the context of the SOL.

A **clinical oncologist** is the only medical specialist trained in prescribing radiotherapy in addition to systemic anti-cancer therapies (SACT) (chemotherapy, hormone therapy, biological therapy, immunotherapy) and the use of radioactive isotopes. The clinical oncologist is often the only doctor, together with the general practitioner, to manage the patient through the whole course of their therapeutic pathway.

Clinical oncology key facts (taken from the Royal College of Radiologists (RCR) Clinical radiology UK workforce census 2017 unless otherwise indicated)⁵

- 60 full-time consultant clinical oncologists are needed now to fill vacant posts, and one in three of these posts have been vacant for a year or more.
- The CRUK 'Full Team Ahead' report made a compelling case for significant clinical oncologist expansion, even with the new models of care already adopted⁶.
- The number of vacant posts in 2017 exceeds the number of trainees estimated to enter the UK consultant workforce every year for the next five years.
- There is estimated to be a shortfall of approximately 250 full-time consultant clinical oncologists by 2022.
- In the last five years, the whole-time equivalent (WTE) consultant clinical oncologist workforce has grown at an average of 4% per annum, however, the growth rate halved in the 12 months to October 2017 to just under 2%.
- In 2017, 23% of consultant clinical oncologists working in UK cancer centres undertook their primary medical qualification abroad (this is used as a reasonable proxy for nationality). This was split between 6% from the EEA and 17% from the rest of the world.
- Mean age at retirement of consultants fell below 60 for the first time in 2018.
- 28% of all consultants work less than full time (LTFT), and LTFT working becomes much more common as consultant age increases. There has also been an increase in LTFT training and out-of-programme activities. Therefore, although the oncology workforce has been growing, this has not equated to significant growth in WTEs. In 2018 all clinical oncology training posts were filled. As such, encouraging more trainees to apply for the specialty would not help to address workforce shortages.

Clinical radiology key facts (taken from the RCR Clinical radiology UK workforce census 2017 unless otherwise indicated)⁷

- The demand for radiology services has increased rapidly over recent years, particularly for more complex imaging which takes longer to interpret and report. This has resulted in an estimated increase of 30% in the overall diagnostic reporting workload in the last five years.
- In 2017, there was an estimated shortfall of 1,004 whole time equivalent (WTE) consultant clinical radiologists. It is estimated that this shortfall will increase to approximately 1,600 consultant radiologists (WTE) by 2022.
- Increased demand means that almost all radiology departments are struggling with workload. In the RCR's 2017 census, only 3% of radiology departments stated that they were able to meet all their reporting requirements within staff contracted hours.
- In order to manage workload, radiology departments have significantly increased the use of insourcing and outsourcing, resulting in an estimated expenditure of £116m on these services in the financial year 2016/17. This is double the estimated expenditure three years previously, and the equivalent of the combined salaries of approximately 1,300 full-time consultant clinical radiologists.
- The vacancy rate in radiology departments has increased from 8.5% in 2016 to 10.3% in 2017.
- There are currently almost four applicants for every radiology training place,⁸ and training places are consistently filled. Therefore, expansion of the workforce will require additional funded training posts.
- In 2017, 30% of consultant clinical radiologists working in the UK undertook their primary medical qualification abroad. This was split between 9% from the EEA and 22% from the rest of world.

Measures in place to reduce shortages

Current measures in place to try and reduce shortages of clinical radiologists include:

- The RCR-Health Education England (HEE) 'Earn, learn and return' initiative⁹ which began in 2018. Under this initiative, overseas qualified radiologists will be appointed to newly-created specialty doctor grade posts.
- The removal of the Tier 2 visa cap for doctors.
- The RCR has consistently lobbied for an increase in the radiology workforce.
- The Cancer Workforce Plan pledged HEE investment in 300 reporting radiographers by 2021¹⁰. However, this will primarily involve training existing radiographers, not expanding the core radiographer workforce. Since there is also a shortage of radiographers - as evidenced below – this will merely redistribute the workload within radiology departments, not reduce it. Furthermore, this measure will have minimal impact on demand for reports on increasingly complex imaging studies, which must be undertaken by a radiologist.

However, in light of the scale of shortage of radiologists, these measures are likely to be insufficient to address the workforce crisis in clinical radiology.

Clinical oncologists will also benefit from the removal of the Tier 2 visa cap for doctors. In addition, the RCR have been actively lobbying for an increase in the oncology workforce for several years¹¹, although the impacts of this work are unclear, and will remain so until the release of the NHS Long Term Plan.

The importance of multi-disciplinary teams

Crucial to our further suggestions for the SOL, is the reality that doctors in both specialties work in multidisciplinary teams. Radiologists routinely work in teams with radiographers, sonographers, radiology nurses and medical physicists. However, there are shortages in all of these professions – in the case of radiographers and sonographers the 2016/17 Radiology Benchmarking Project found that 15% of sonographer posts and 10% of radiographer posts were vacant¹². We also know from the experience of our members that there is a shortage of medical physicists. These shortages impact on image acquisition and service delivery. In order for radiology teams to work effectively, there must be a sufficient workforce and an adequate skill mix.

The use of 'non-consultant, non-training, medical staff post in clinical radiology' posts – specifically, specialty and associate specialist (SAS) radiologists – is increasing. There are currently 80 doctors at this grade working across the UK¹³ and several trusts are looking to recruit more¹⁴. The RCR Clinical Radiology UK workforce census 2017 showed a vacancy rate of 7% for SAS-grade radiologists. These posts require at least four years of postgraduate training, two of those being in a relevant specialty. SAS doctors are usually more focused on meeting NHS service requirements, compared to trainee or consultant roles. Encouraging the expansion of this aspect of the workforce via inclusion on the UK SOL could provide a cost-effective and more immediate method of addressing the radiology workforce crisis through providing an easier route for overseas doctors with equivalent experience to work in the NHS.

The work of clinical oncologists is also heavily integrated with the wider multiprofessional nonsurgical oncology team, including nurses and pharmacists as well as therapy radiographers and physics technologists. As demand for cancer treatment rises (courses of systemic anticancer therapy are increasing at a rate of 8% per annum¹⁵), therapy becomes more complex and technology continues to advance, the need for a sufficient workforce for each role in these teams becomes ever more important. Radiotherapy, for instance, which is growing at a rate of 2% per annum,¹⁶ can only be delivered safely via a co-ordinated, integrated multi-professional team effort. The other professionals in these teams - therapeutic radiographers and medical physicists - are also both currently facing workforce shortages.

The team-based nature of clinical oncology and clinical radiology roles means that ensuring an adequate wider workforce so that departments can work effectively is crucial. However, shortages in many related professions undermine this effectiveness. As such, the inclusion of all of these wider team roles in the UK SOL is vital. It is also important to note that many of the roles that make up the wider radiology and oncology workforce - such as radiographers or less than full-time SAS-grade

radiologists – can fall below the current £30,000 threshold for the Tier 2 visa. We strongly urge that this salary threshold is abolished. If a threshold is maintained, then it should either be based on skillset rather than salary, or should exclude healthcare workers. The importance of wider supporting team members to the day-to-day running of radiology and oncology departments cannot be overstated. Without sufficient staffing these departments will be unable to function effectively, with severe implications for patient care and the wider NHS.

References

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- ¹² NHS Benchmarking Network, 2017, 'Benchmarking Radiology Services'. Available at: <https://static1.squarespace.com/static/58d8d0ffe4fcb5ad94cde63e/t/5ae98eeb2b6a28d38249e925/1525255921604/Radiology+Project+Card.pdf>
- ¹³ The RCR, 2018, 'Clinical radiology UK workforce census 2017'.
- ¹⁴ Two job descriptions available at: <https://www.indeed.co.uk/viewjob?jk=e99d07b541b03778&tk=1cv11546816p3003&from=serp&vjs=3>
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- ¹⁵ Systemic Anti-Cancer Therapy Chemotherapy Dataset: <http://www.chemodataset.nhs.uk/home>
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