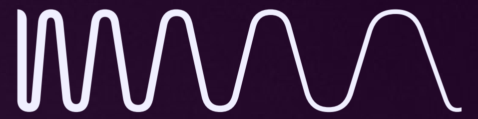
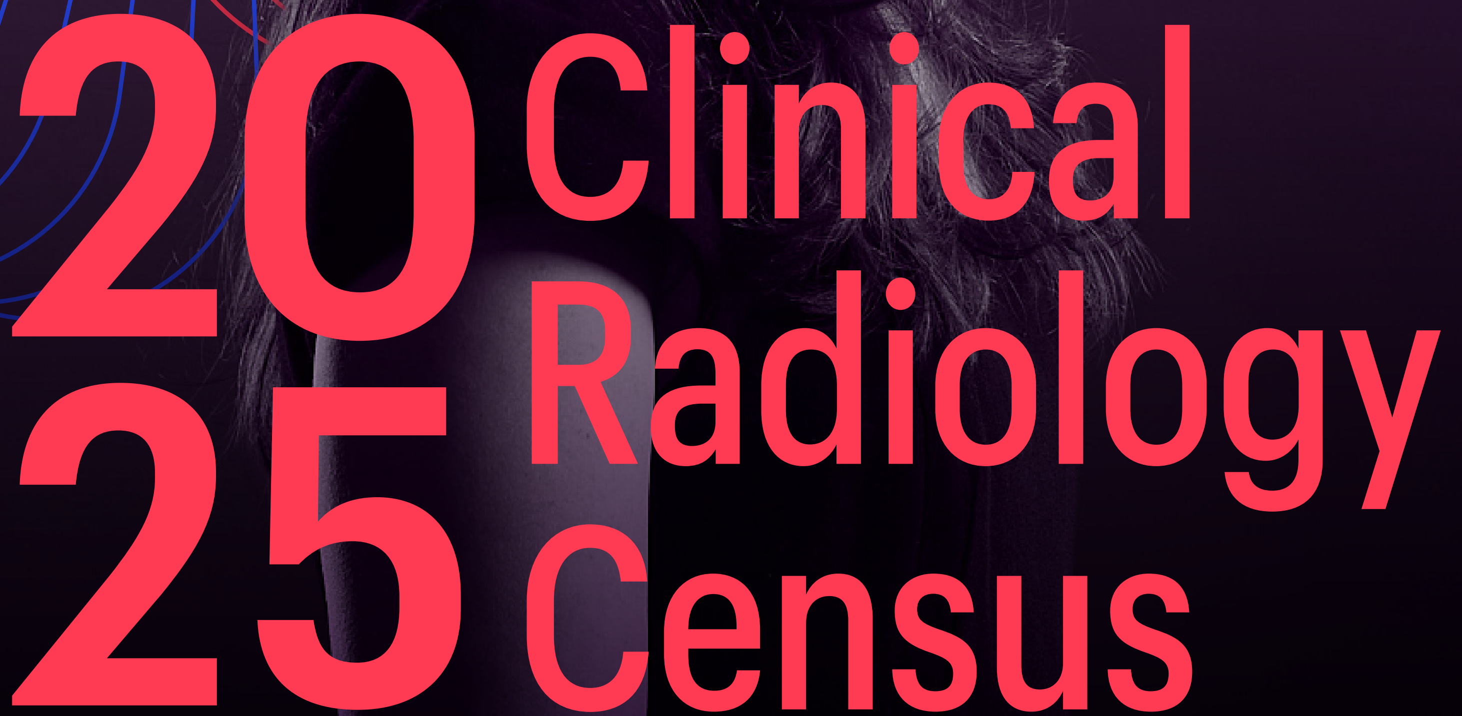
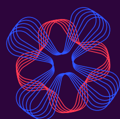




2025 Clinical Radiology Census



Contents

01 Introduction to the workforce census 3

Foreword 4

Key findings at a glance 5

Executive summary 6

Recommendations 8

02 Consultants and SAS doctors 11

Size of the shortfall in 2025 12

Substantive workforce growth 12

Rising demand for imaging 13

Workforce distribution 14

Demographics: gender, age and country of PMQ 15

Spotlight: SAS doctors 16

Locum doctors 16

Attrition 17

Forecast retirements 18

Less than full time working 19

Special interests 20

How clinical radiology consultants spend their time 21

03 Resident doctors 22

Workforce statistics 23

Length of training 23

Clinical radiology fill rates and competition ratios 24

LTFT working amongst residents 24

Training attrition 24

Post-training attrition and movements 25

Recruitment freezes 26

Concerns about training capacity 27

04 Interventional radiologists 28

Interventional radiology workforce growth 29

Interventional radiology workforce distribution 30

Interventional radiology demographics 31

Interventional radiology consultant attrition and forecast retirements 31

Interventional radiology working patterns: LTFT and programmed activities 32

Interventional radiology service provision 33

Spotlight on interventional neuroradiology 34

The workforce shortfall in interventional radiology 35

The impact of Interventional radiology workforce shortfalls 36

05 System impacts and the multidisciplinary team 38

What are the effects of workforce shortfalls? 40

How are clinical radiologists responding to these challenges? 46

06 The national picture 49

National and regional shortfalls 50

References 53

1 Introduction to the workforce census

Foreword

Dr Robin Proctor
Medical Director
Professional Practice,
Clinical Radiology,
Royal College of Radiologists

Radiologists are specially trained doctors who are pivotal to the diagnosis and care of millions of patients every month with cancer and other serious conditions. Radiology is therefore one of the most impactful medical specialties in the NHS, as it is only through radiologists working in effective services that the NHS and the government can hope to deliver the care that patients rightly expect. Unfortunately, however, the UK has too few radiologists.

Policymakers should care about this. The UK lags behind comparable nations in early cancer diagnoses, scanning activity, and health outcomes across a range of major illnesses. This is caused by radiology staffing shortages; the later patients are diagnosed, the worse their outcome is likely to be. There is now a 32% consultant workforce shortfall in radiology. In 2020, Professor Mike Richards estimated that the NHS in England alone required an additional 2,000 radiologists by 2025.[1] The NHS has unfortunately added fewer than half that many radiologists in that time – yet demand has continued to grow. The Royal College of Radiologists has been delivering this message for over a decade, yet no government has undertaken the necessary workforce planning to put radiology on a sustainable footing. The radiology shortfall has more than doubled in the past decade. Radiologists up and down the country are therefore working harder than ever, yet they are struggling and are often unable to maintain an adequate service.

There is now an unrealistic expectation to maintain a perpetual crisis response in the face of chronic workforce shortages. Over a long period, such an expectation is harmful. It deprioritises planning for measures that could genuinely help and it worsens structural issues that services face. Meanwhile, it incentivises staff to move to more appealing working environments or leave the NHS entirely, as has been demonstrated in successive RCR censuses. Focusing on short-term reduction in spending, rather than considering planned return on investment, compounds the situation.

Radiologists' contribution to direct patient care goes beyond how many imaging studies they interpret and report per unit time. It includes clinical liaison, interventional procedures, preparation for multidisciplinary team meetings, radiation protection, teaching and training, quality improvement, research and the clinical evaluation, implementation and oversight of AI. A desire to optimise productivity is a sensible national goal, but should recognise all these activities. Ultimately, service stability and high-quality patient care are dependent on sustainable working patterns delivered through workforce planning and investment. The census aims to provide radiology departments with data to support business cases and local service development. It also enables the RCR to advocate to the UK's governments and the NHS on behalf of our specialty. It will take real bravery and determination on the part of governments to do what must be done: proper workforce planning, optimising demand for imaging, empowering doctors to treat patients, and to get real about how we measure productivity and set targets.

Thank you to all the Clinical Directors and their colleagues who completed the census this year. I know it adds to your already busy job, but I hope you feel that the results are useful. Yet again your 100% response rate makes our data impossible to dismiss and exceedingly difficult to dispute. We will be using it week in, week out to advocate for you and your patients.

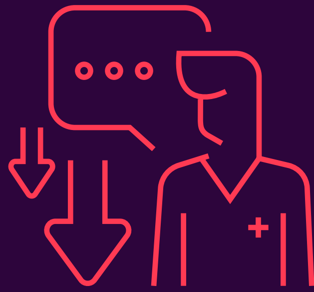
Key findings at a glance

32% 2025 clinical radiology consultant shortfall

30% shortfall in teaching hospitals versus 43% shortfall in small acute hospitals

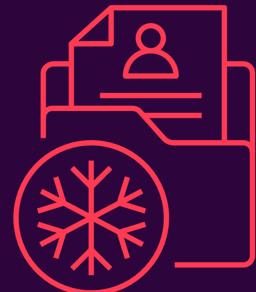
80%

Clinical Directors have seen patients' conditions worsen due to delays caused by radiology workforce shortages



83%

Clinical Directors concerned that workforce shortages are adversely affecting training

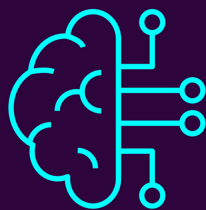


38%

radiology departments experienced a recruitment freeze in 2025, double the number in 2024

£362 million

spent on outsourcing, insourcing and locums – equal to **3000+ WTE consultant salaries** – more than the entire shortfall



1in5

radiology departments say AI has reduced their workload

2x

demand for complex imaging versus rate of workforce growth (9% vs 4.3%, 2024–25)

Executive summary

The Royal College of Radiologists' 18th annual clinical radiology workforce census presents an in-depth look at the state of the specialty across the four nations of the UK. Data collection began in September 2025 and once again the completion rate was 100%. Returns were received from Clinical Directors, clinical radiologists who lead radiology departments. This makes the data robust and enables analysis of long-term trends at both the national and regional level.

Clinical radiologists are specialist doctors who use medical imaging to diagnose and monitor benign and malignant diseases and injuries, and perform minimally invasive procedures. They are the eyes of the NHS, interpreting patients' scans, which is essential for treatment planning and delivery. Diagnostic activity is involved in over 85% of all patient pathways, of which imaging is the major component.[2] Interventional radiologists perform minimally invasive, image-guided procedures which offer fast recovery and reduced morbidity and mortality compared to traditional surgical procedures. Except where noted, all data refers to the entire radiology workforce, diagnostic and interventional.

It would be impossible to run the NHS without radiologists. If UK governments want to achieve their targets for cancer, early diagnosis and healthcare across the board, they must seriously engage with the findings of this report.

The UK has too few clinical radiologists – and the problem is getting worse.

As of 2025, the country has a 32% shortage of clinical radiology consultants, up from 29% in 2024. This means we are over 2,300 doctors short of being able to provide safe and effective care to all patients. The shortage will rise to 40% by 2030 if no action is taken. This is because demand for care is outpacing capacity, measured by the average rate of growth in complex imaging examinations (5.9% per annum) against the average rate of growth of the workforce who interpret those scans (3.9% p.a.) over the past five years. Moreover, more than a fifth of radiology consultants are expected to retire by 2030.

This situation is compounded by recruitment freezes, with trusts and health boards feeling forced to adopt an incoherent policy of preventing workforce investment because of severe financial constraints. These recruitment freezes have doubled in the past year, from 19% in 2024 to 38% in 2025. They are a direct blocker to timely and effective patient care.

Demand for radiology expertise is rising uncontrollably, without adequate quality control measures in place to ensure scans genuinely contribute to good patient care.

Demand for radiological expertise is not just rising because the population is growing and ageing. It is also rising because of changes to clinical pathways and service specifications, a huge number of which involve the inclusion of additional imaging. Often this represents best practice and should lead to better care, but these changes are regularly made without a proper impact assessment or workforce planning, with little regard for the knock-on effects for other patients given limited radiology capacity.

What is more, there are concerns that insufficient quality control measures are in place to ensure that scanning activity is optimised. While many scans can help patients, it is also tempting to look to imaging to fill gaps in other services. There are too many scans requested and conducted that do not genuinely contribute to patient care, which means patients are unnecessarily irradiated and may actually have their diagnosis delayed, causing additional discomfort and anxiety.

Patients are at risk because delays to diagnosis have knock-on effects for health outcomes.

Patients are at increasing risk because of workforce shortfalls. Delays to diagnosis lead to delays to treatment, which can have serious consequences for patient outcomes, and even in the best-case scenarios result in agonising waits for clarity.

Approximately four-fifths of Clinical Directors know of instances where a patient's condition has deteriorated because of delays caused by staff shortages in radiology. Moreover, just one-fifth report that they have sufficient clinical radiologists for safe and effective care. This comes as the NHS in all parts of the UK continues to fail to meet its targets for diagnostic waiting times and radiology reporting times.

Radiology departments are forced to spend increasing amounts on measures to meet excess reporting demand: outsourcing, insourcing, and ad hoc locums. In 2025, expenditure on these measures rose to £362 million – more than twice the 2021 figure. This spending is unsustainable and does not represent value for money. The NHS should take steps to reduce its reliance on these measures.

Too few patients have access to interventional radiology, with unequal access across the UK.

The impacts of staff shortages on patients are even more pronounced in interventional radiology (IR). Half of all IR services are not available 24/7. 38% of interventional neuroradiology services are not available 24/7. Many of the UK's rural areas have limited access to interventional radiology. Staff shortages are a major cause of this. The UK has a 27% shortfall of vascular and non-vascular IR consultants.

86% of Clinical Directors have seen interventional radiology procedures delayed or cancelled over the past year due to IR workforce shortfalls and 77% have seen patients deteriorate because of workforce shortfalls. For patients, a lack of access to interventional radiology can make a huge difference to their outcomes.

The system no longer incentivises training. This jeopardises the future workforce and the health of future patients.

In the face of these challenges, expert training for the next generation of radiology consultants is vital. However, demand for care is such that most consultants are experiencing an erosion of the time they can dedicate to training or supervision. Four-fifths of Clinical Directors report that staff shortages negatively affect training, and three in five report that there are fewer training opportunities available for resident doctors in IR.

Moreover, the NHS's recruitment process is disjointed, with a lack of clarity and sufficient notice around when posts are made available, alongside contradictory directives from different parts of the NHS concerning where and how trusts/health boards should spend money on training. Recruitment freezes are a further instance of these short-sighted and contradictory directives and create additional complexities for training programmes and radiology departments.

Technology could, but is not currently, releasing time for clinical radiologists to spend caring for their patients.

Artificial intelligence (AI) is now being used in 75% of radiology departments. Despite its growing prevalence, there is currently little evidence to suggest it is having a meaningful impact on radiology workloads. Over half of departments are using AI to support image interpretation, but of these nearly three-quarters say it has had no effect on their workload. Moreover, AI use for purposes other than image interpretation remains uncommon. Indeed, the data suggest that AI tools in radiology could be most useful in those areas where they are currently least used, such as report drafting. Reliable tools that reduce radiologists' administrative burden would be especially welcome. With demand set to rise, radiology departments will require more support to ensure the wider promise of AI is realised in such a way that it meaningfully releases capacity back into the system.

Recommendations

A Grow the clinical radiology workforce

+ The NHS in each nation should increase the baseline number of specialty training places for clinical radiology to progressively eliminate the workforce shortfall.
+ The NHS should commission and make public comprehensive radiology workforce planning to facilitate expansion in training post allocations, and ensure that government ambitions are matched with the necessary workforce capacity to deliver them.
+ Trusts/health boards will require adequate financial support to enable them to take up additional training posts.
+ Economic modelling commissioned by the RCR shows that a 10% uplift in the number of specialty training places in clinical radiology would result in £100 million in cost savings after ten years and close half the workforce shortfall. This is compared to reliance on outsourcing and staff overtime, and assumes a 1.9% per annum productivity improvement in line with NHS England targets.

B Eliminate recruitment freezes

+ Trusts/health boards should not impose recruitment freezes on radiology departments. All ongoing recruitment freezes should be lifted.
+ National NHS leadership must intervene where recruitment freezes are identified.

C Optimise demand for imaging and reporting

+ The NHS should perform impact assessments in line with updates to service specifications and clinical guidance, such that the necessary additional radiology capacity to deliver the new practice is quantified and can be planned for.
+ The NHS and the Academy of Medical Royal Colleges should work with the RCR to support initiatives like ‘Right Test, Right Time’, and consider their expansion in line with evidence.
+ The NHS should roll out iRefer clinical decision support to every trust/health board in the UK to ensure the correct imaging examination is requested in the first instance.

D Allocate training posts by WTE to maximise training capacity

+ The NHS should allocate funding for specialty training posts by whole time equivalence (WTE), rather than simple headcount, to facilitate greater use of slot sharing and maximise existing capacity in the system.
+ The NHS should provide timely confirmation of funding for training posts, including any additional posts, to allow trusts/health boards to take advantage of the offer. Communication to trusts/health boards should be clear, consistent and timely.

E Support training programmes with additional support and infrastructure

+ A greater proportion of radiology lists should be used as training lists. To enable this and to ensure it is mutually beneficial to residents, trainers and patients, additional support and infrastructure will be required. This should be identified in phase two of the medical training review.
+ Such support could include: sufficient SPA/training time for trainers, expansion of the consultant workforce, additional reporting workstations, ring-fenced training lists, provision of training in community diagnostic centres, home reporting outside of training lists, and support for regional radiology academies. Above all, there must be adequate recognition of the value of training.
+ The NHS should provide smaller radiology departments with targeted support to accommodate additional residents for training.
+ Trusts/health boards should provide senior trainers, such as Heads of School and Training Programme Directors, with additional time and support they need to do their jobs.

F Invest in the interventional radiology workforce

+ The NHS in each nation should provide additional training places to interventional radiology such that, over time, all regions are able to provide adequate, 24/7 patient access to vital IR services.
+ Every nation and region should have access to 24/7 interventional neuroradiology for acute stroke care. To build on strong progress already made in thrombectomy provision, the NHS in each nation should continue to invest in INR services to ensure that stroke patients can access thrombectomy within sufficient time to benefit, including the time taken for onward transfer to the nearest neuroscience centre.
+ Trusts/health boards should consider how they increase the support available to ‘spoke’ IR services, such that there is sufficient provision for patients who need drainages, biopsies and other emergency procedures (e.g. nephrostomy).

G Targeted workforce investment in under-resourced regions

+ The NHS in each nation should implement measures to attract doctors to under-resourced areas, such as rural and coastal regions, and to smaller hospitals.
+ The NHS should consider providing further incentives to attract staff to traditionally under-resourced areas.

H Provide and protect doctors' leadership, training and governance time

+ Trusts/health boards should ensure all doctors have a minimum of 1.5 SPAs in their job plans to enable revalidation.
+ Doctors with additional responsibilities, such as training or clinical leadership, should have additional SPA time (i.e. more than the minimum of 1.5) that realistically reflects the time required for those roles and responsibilities. This is necessary for long-term service stability and for meaningful service improvements.
+ Job plans should be designed such that direct clinical care activity is achievable without the erosion of allocated SPA time.

I Reduce the NHS's reliance on outsourcing in radiology

+ The NHS should introduce measures to strengthen the capacity of core radiology services and reduce their reliance on outsourcing, the spend on which could instead meet the salaries of over 3,000 consultant radiologists - more than the current shortfall.
+ These measures could include greater use of imaging networks to absorb additional demand and to limit the use of outsourcing to instances where specialist expertise is not available locally.
+ The NHS must also address the 'push' factors that drive radiologists to reduce their NHS hours or leave the NHS entirely. This can be done with active measures that support staff retention.
+ This must go hand in hand with workforce planning and additional NHS radiology capacity, achieved via workforce growth.

J Make additional, targeted investment in radiology AI

+ The government should invest further in artificial intelligence tools with administrative applications, which the evidence suggests have significant unexploited potential to genuinely free up radiologists' time to spend directly caring for patients.
+ Use and implementation of radiology AI tools should be radiologist-led and follow clear evidence of their benefit to patients and the system, in line with national professional safety guidelines and strict governance assurance. Tools not proven to improve quality of care should not be used.
+ Trusts/health boards should be encouraged and supported via deployment guidance to select the best AI tool for a given task, rather than a cheaper but less effective tool. The RCR AI Registry is a useful resource to support appropriate AI tool selection.
+ Funding is also a significant barrier in identifying and deploying value-for-money tools. Trusts/health boards will require targeted financial support to select and deploy such tools.
+ The NHS should invest in national training resources to ensure doctors have the knowledge and skills required to harness the opportunities AI presents. These would accompany practical, specialty-specific materials and resources produced by the RCR.

2

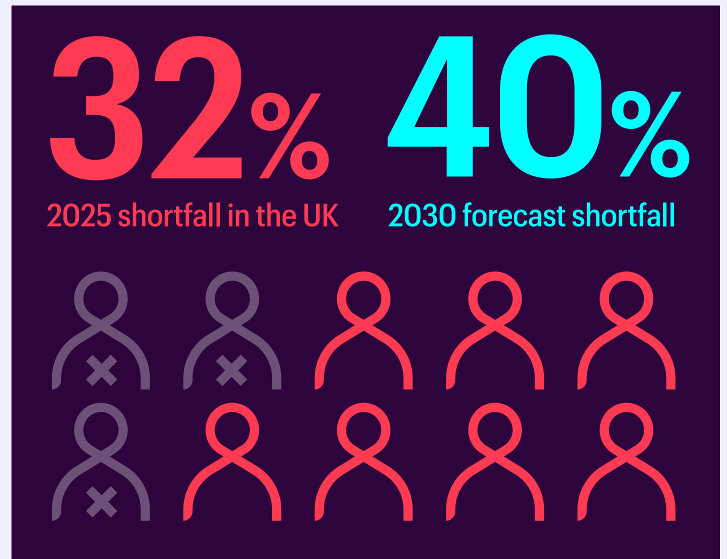
Consultants and SAS doctors

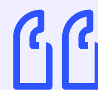
Size of the shortfall in 2025

The UK has a 32% shortfall of clinical radiology consultants. This means that the country needs an additional 2,313 whole time equivalent (WTE) clinical radiologists to provide the level of safe, effective care that is required.[3] The workforce shortfall in 2024 was 29%. The shortfall calculation methodology has evolved to become more precise over time, making direct comparisons difficult, but nonetheless, 32% is the largest recorded clinical radiology consultant workforce shortfall since at least 2019.

England currently has a 33% shortfall, whilst the other nations each have a 28% shortfall. Regional variations within each nation are significant. Scotland has the widest range, from 16% in the South East to 50% in the North. Similarly, the shortfall in South Wales, 22%, contrasts with that in North and West Wales, 42%. Shortfalls in England's regions range from 22% in London to 43% in the North East.

Average shortfalls vary also by type of trust/health board. Specialist hospitals and teaching hospitals – which are primarily found in large cities and are generally better resourced and financed – have the smallest average shortfalls: 19% and 30%, respectively. On the other hand, small acute hospitals have an average shortfall of 43%.[4] The UK shortfall is forecast to rise to 40% by 2030 should current trends persist. At the national level, the forecast shortfalls are 34% in Wales, 37% in Scotland, 41% in England and 42% in Northern Ireland. Action to address workforce shortages must be taken before the situation worsens.



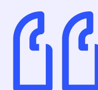


It feels like a constant battle to keep on top of our work.

CR CLINICAL DIRECTOR

Substantive workforce growth

As of the end of 2025, there are 4,513 WTE substantive consultant and Specialty and Associate Specialist (SAS) clinical radiologists in the NHS. Of these, 4,396 WTE are consultants. In the past year, the NHS gained a net 182 WTE clinical radiology consultants and 8 WTE SAS radiologists. Over the past five years, the NHS has gained 808 WTE consultant and SAS radiologists. However, this is far short of the 2,313 WTE currently required to eliminate the workforce shortfall. The substantive clinical radiology consultant workforce grew by 4.3% from 2024 to 2025, and at an average annual rate of 3.9% from 2020 to 2025. Average annual consultant workforce growth over the past five years in larger hospitals (teaching, specialist, multi-service and large acute) was 4.1%. However, the substantive CR consultant workforce in small and medium acute hospitals declined by an average of 1.4% per year.



We have recently had an increase in consultant radiologists... which has significantly improved our reporting turnaround times...

CR CLINICAL DIRECTOR

Rising demand for imaging

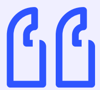
Demand for diagnostic imaging has risen sharply in recent years, leading to higher pressure on radiologists and a growing backlog of reporting. There are many reasons for this: a growing and ageing population requiring more care, the development of improved imaging modalities, changes to clinical pathways and service specifications necessitating additional scanning at various stages, the advent of screening programmes, changes to patients' behaviour and reduced risk appetites amongst healthcare professionals. Updated clinical guidelines that include recommendations for additional imaging are often implemented without an impact assessment or consideration of the additional reporting capacity required to deliver the new practice. Guideline development should be led by the evidence, but implementation needs to account for the necessary input.

In England there was a 5.9% increase in imaging activity across all modalities from financial year 2023/24 to FY 2024/25.[5] This rises to 9% for complex imaging modalities, which are almost entirely reported by clinical radiologists (CT, MRI, PET, SPECT, and nuclear medicine procedures). Similar increases in imaging activity are observed in the other UK nations.[6]

Imaging activity for patients in A&E has seen a particularly sharp rise. It comprised 15% of all complex imaging activity in England in 2018/19, but by 2024/25 this had risen to 21%. Complex imaging activity from A&E increased by 12% in the past year. Most of these are CT scans, 34% of which now originate from A&E (up from 25% in 2018/19). Overall, between 2016/17 and 2023/24 the number of CT scans originating from A&E has doubled whilst A&E attendances per 100,000 population have remained stable.[7] There are concerns that insufficient quality control mechanisms exist for much of this imaging demand, and that imaging is being used instead of more appropriate measures like clinical examination or a senior opinion, such that there are too many referrals for scans that are unnecessary, or for the incorrect modality.

The number of complex scans requiring reporting by a radiologist grew by 5.9% per year (on average) from 2020–25. Therefore, demand is rising faster than the radiology workforce is growing. Moreover, complex scans comprised 22% of all scans in 2019 but now comprise 28% of all scans. A complex CT scan may take far longer for a radiologist to report than a simpler imaging study like a plain radiograph.[8] It is not just the amount of work that has risen; radiologists' reporting work is also becoming more complex.

This is a complicated problem that will require multiple solutions. There must be workforce planning and further investment in the clinical radiology workforce such that capacity to report scans matches demand. And there must be optimisation of imaging activity, with the elimination of scanning requests that do not help patients, so radiologists spend their time making genuinely productive contributions to patient care.



> Decisions about imaging are made by managers and other teams with a huge impact on radiology, but radiology input is not even taken. We are just expected to absorb the extra load.
>
> CLINICAL DIRECTOR

Demand is outpacing growth

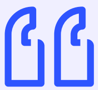
9% increase in complex imaging

4% CR consultant workforce growth

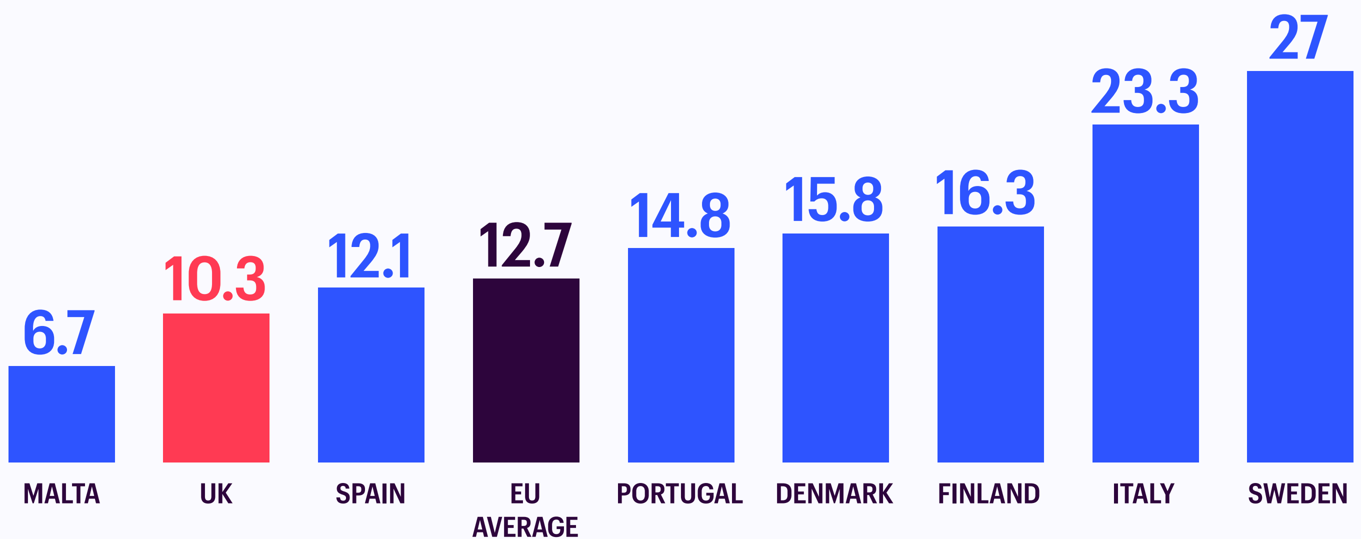
Workforce distribution

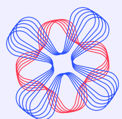
The clinical radiology workforce is not evenly distributed around the country. The UK has an average of 10.3 clinical radiologists (consultants, SAS and residents) per 100,000 population. This is less than the OECD average of 12.8 per 100,000. Of any UK region, only London has more than the OECD average (14.1).

Moreover, the UK also has fewer radiologists per capita than comparable nations. The 27 European Union nations have 12.7 radiologists per 100,000 population, whereas the UK has just 10.3 radiologists per 100,000 population.[9] This is fewer than France (13.1), Italy (23.3), and Sweden (27).



> We [are] often utilising all available radiologists to meet acute demand, which causes delays in reporting of non-acute scans, both urgent and non-urgent.
>
> CLINICAL DIRECTOR





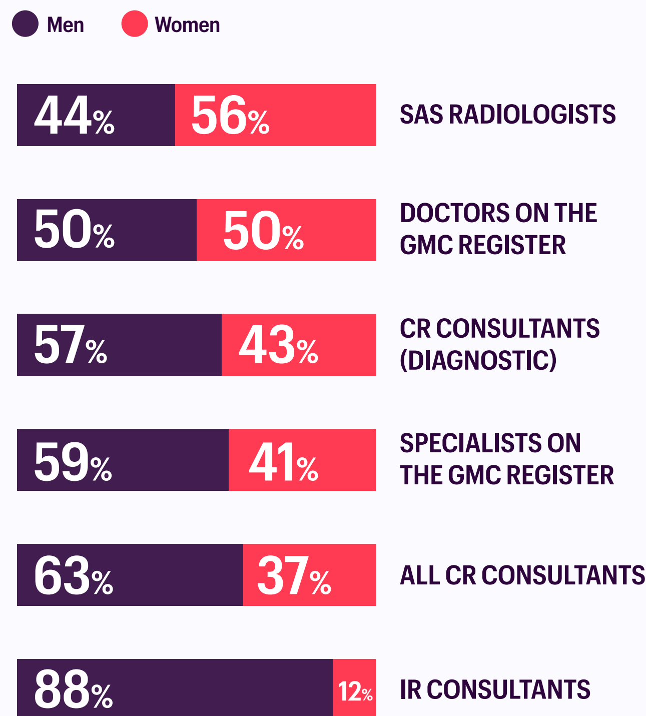
Demographics: gender, age and country of PMQ

The UK's clinical radiology consultant workforce is now 37% women and 63% men. This is the highest share of women consultants on record; in 2015, just 33% of the workforce was women. The entire GMC register shows a 50:50 gender ratio amongst doctors, and 41% of doctors on the specialist register are women. 43% of diagnostic radiology consultants are women. Just 12% of IR consultants are women.[10] By contrast, over half (56%) of SAS-grade radiologists are women.

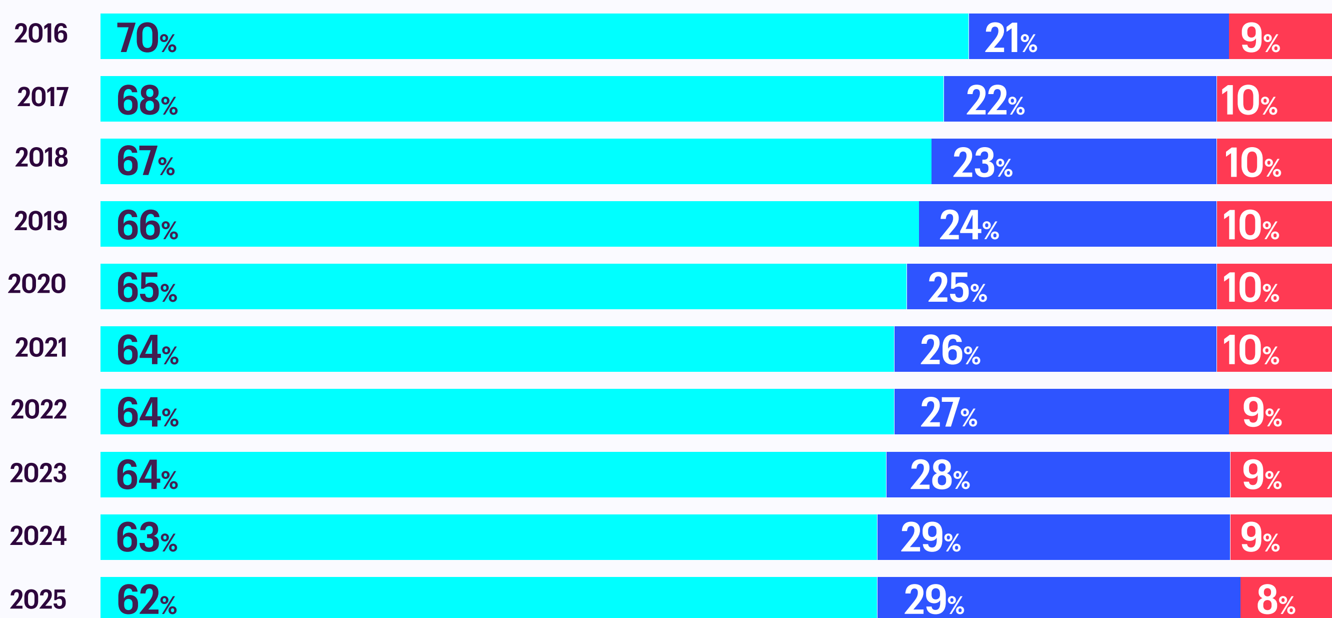
The median age of a clinical radiology consultant is 47 years; this is largely unchanged in the ten years since 2015 (46 years). SAS radiologists are on average younger, with a median age of 41 years.

62% of consultant clinical radiologists are UK medical graduates. The remainder gained their primary medical qualification (PMQ) overseas. Since 2015 the proportion of clinical radiology consultants who have a PMQ from another country has risen from 29% to 38%.

Gender ratios, CR workforce compared to GMC register, 2025



CR consultants by region of PMQ, past decade



Spotlight: SAS doctors

The NHS currently has 139 WTE SAS radiologists (including locums). This equates to 2.7% of the total clinical radiology (consultant and SAS) workforce. Since 2020, there has been an average annual increase of 12.4% in SAS radiologists. 91% of SAS radiologists as of 2025 gained their PMQ outside of the UK. 9% gained their PMQ from the European Economic Area (EEA) whilst 82% gained their PMQ from the rest of the world.

Large, teaching and specialist hospitals employ fewer SAS radiologists than small and medium hospitals. SAS radiologists comprise 2.1% of the workforce in the former but 4.2% in the latter. Amongst small acute hospitals, they comprise 5.3% of the workforce.

Locum doctors

Locum doctors are employed on a fixed-term basis, typically to plug a gap in the workforce in the event of absence (e.g. for parental leave or sickness). Individuals may choose locum posts for the greater flexibility they offer, or because substantive consultant posts are not available.

The UK has 466 WTE locum clinical radiology consultants. Average annual growth of this cohort since 2020 is 13.1%, which is over three times that of substantive consultants. However, annual growth from 2024-25 was only 2.3%, which may relate to the government's recent cuts to agency spending.[11] Locums currently comprise 10% of the CR consultant workforce. 85% of locum consultants are IMGs. In large, specialist and teaching hospitals, locums comprise 8% of the consultant workforce, versus 18% in small and medium hospitals. Small acute hospitals are the most reliant on locums (19% workforce share).

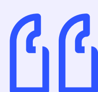
Generally, locums deliver service and patient care (e.g. reporting scans, interventional procedures) but contribute less to training, service development, audit, research and other similar activities. In departments employing many locums, the burden of these activities may fall disproportionately on substantive consultants. This may compound the recruitment and retention challenges some of these departments are facing.

Attrition

In 2025, the average annual attrition rate amongst clinical radiology consultants was 3.1% (excluding locums). Those leaving the NHS have various destinations: some are retirees, some leave to practise medicine abroad, some enter private practice, and some pursue work in other sectors. Over three-quarters (77%) of this group of leavers were under the age of 60. The median age of a leaver in 2025 is 50. Those who leave are doing so 'early', i.e. well below retirement age, meaning that many potential years of NHS service are being lost.

The five-year average attrition rate for clinical radiology consultants in large, teaching and specialist hospitals is 2.8%, whereas in small and medium hospitals it is 4.1%. The attrition rate is highest amongst small acute hospitals (5%). This discrepancy suggests that larger hospitals and/or those that can support research and cutting-edge therapies may face fewer struggles to retain staff. Average annual attrition amongst consultants who completed clinical radiology specialty training in the UK is 2.7%. This compares to 4.3% amongst those who completed clinical radiology specialty training overseas. Doctors who trained overseas are likely to have stronger connections with the country in which they trained and may return to that country after working in the UK; others join the NHS on a fixed-term basis.[12] Additionally, IMG radiology consultants are more likely to work for a teleradiology company (see page 45).

Average annual attrition amongst substantive SAS-grade radiologists is 8.7%. They also leave at a younger age, with 100% doing so under the age of 50. The median age of leavers from this group in 2025 is 37 years. This is not due to a change of grade from SAS to consultant. Higher turnover in SAS posts has been observed across specialties and is associated with fewer continuous professional development (CPD) opportunities, less chance of progression, and a feeling of exclusion from the multi-disciplinary team.[13] The fact that most SAS doctors are IMGs is likely to also be a factor.



> With a small department, it does not take much to have unsafe cover in sub-specialties.
>
> CLINICAL DIRECTOR

> We have increased our scanning capacity by 100%, but had a net loss of three radiologists over the past five years. This makes catching up almost impossible.
>
> CLINICAL DIRECTOR

In 2025:

77% of radiologists who left the NHS were under 60 – a huge loss of clinical experience

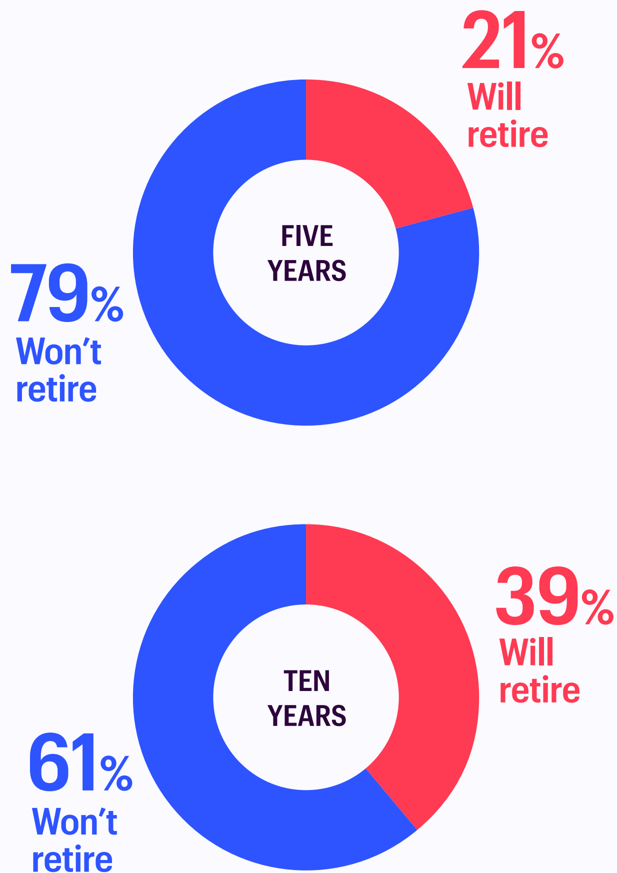
50y was the median age of leavers

9,000 approximated years of NHS service lost if each leaver had retired at age 65

Forecast retirements

As of 2025, 21% of substantive clinical radiology consultants are forecast to retire within five years. The proportion forecast to retire within ten years is 39%. As a younger cohort, fewer SAS doctors are expected to retire in this time: 15% by 2030 and 28% by 2035. Forecast retirements are a major contributor to the 40% forecast consultant shortfall by 2030; the RCR expects the NHS to lose 972 WTE clinical radiology consultants to retirement over the next five years. Though this will be offset by consultants gained via recruitment, the combination of retirements, rising demand and other factors will result in a rise in the shortfall.

CR consultant five- and ten-year forecast retirements



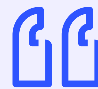
Less than full time working

Less than full time (LTFT) working is increasingly common. It is open to all postgraduate doctors, either during or after specialty training. Many use the option to work LTFT to balance their professional responsibilities against family commitments, to preserve their wellbeing, for financial reasons, or to pursue further education or research.

Currently, 41% of clinical radiology consultants work LTFT.[14] This is the highest figure on record. LTFT working is increasingly common across all age groups, though it is most common amongst consultants approaching retirement age. It is least common in small acute hospitals: 38%. This is perhaps because small hospitals have less capacity to facilitate LTFT working requests than larger hospitals. For the first time, the RCR can forecast that by 2030 half of all clinical radiology consultants will be working LTFT.

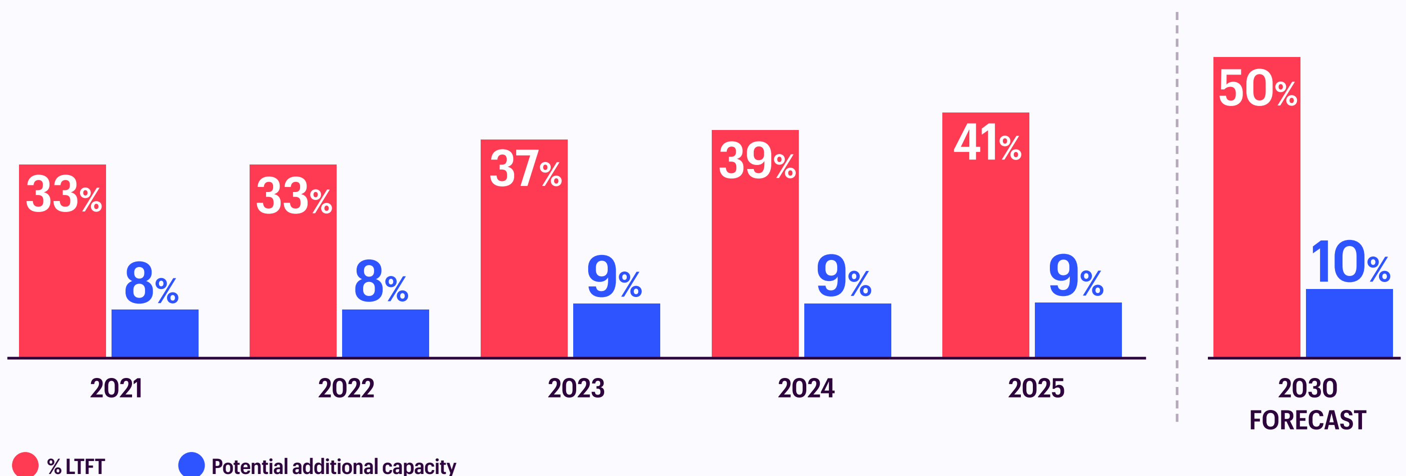
'Potential additional capacity' is the amount of extra WTE the NHS would have if all clinical radiology consultants worked full time.[15] This figure now stands at 9%. Workforce planning must account for the rise in LTFT working; workforce modelling should be based on WTE requirements to deliver the desired outcomes, rather than headcount. This would release some capacity back into the system – though it would by no means be sufficient to close the gap between capacity and demand, so is only one piece of a larger suite of necessary actions.

It is important to note that most staff who work LTFT are working close to full time, with a median workload of approximately 7.7 PAs (equivalent to a 31-hour per week contract), as compared to 10.4 PAs (equivalent to a 42-hour per week contract) for a consultant working full-time. This means that the amount of capacity 'lost' per consultant is relatively low. Moreover, the RCR strongly supports the ability for staff to work LTFT. It can contribute to wellbeing and result in higher morale and productivity at work, as well as to greater staff retention.[16]



We have spare programmed activities due to changes in job plans and partial retirements, but we have not been allowed to use these to advertise for a replacement.

CLINICAL RADIOLOGIST



Special interests

Most clinical radiologists further specialise their practice into either interventional radiology or one or two of several diagnostic areas focused on certain body systems, owing to the complexity of disease and diagnostic skill required at each site. This specific expertise is essential for a comprehensive, modern radiology service; a gastrointestinal radiologist is unlikely to be able to provide comprehensive cover for a neuroradiologist, and vice versa. The most common special interests amongst clinical radiology consultants (excluding interventional radiology – see page 29 for data) are gastrointestinal, musculoskeletal and breast radiology.

Some special interests are at greater risk of workforce shortages than others. Forecast retirements are high for areas such as oncological radiology (28%), chest/lung radiology (24%), breast radiology (22%) and obstetric/gynaecological radiology (19%).

These have significant implications for various government and NHS initiatives, such as those set out in the National Cancer Plan, national lung cancer screening programmes, and the Women's Health Strategy – all of which rely on clinical radiologists with the necessary expertise to provide timely diagnoses.

28% of generalist clinical radiology consultants are forecast to retire. Moreover, generalists comprise 34% of locum consultants, versus 4% of substantive consultants. This may reflect a generational change, with more recently appointed radiologists less likely to consider themselves generalists. However, the risk of a lack of generalism is insufficient cross-cover and comprehensive out-of-hours and emergency care; a 24/7 on-call service is only possible if the radiologists on duty can tackle any case that comes to them, even if they are not experts in that area.

We have one musculoskeletal radiologist and 22 orthopaedic surgeons. This is difficult to manage and is leading to stress and early burnout for my colleague.

CLINICAL DIRECTOR

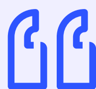
How clinical radiology consultants spend their time

Clinical radiologists face many competing demands for their time. Nearly half (48%) of their time is spent reporting, either solo or with resident doctors present. This aligns with previous estimates.[17] On the one hand, these data indicate that clinical radiologists are delivering high levels of reporting. However, it may also suggest that they are at higher risk of burnout, with less time able to be spent on other direct patient care activities or on service improvement. It should be understood that radiologists' workloads are highly variable and that these data are estimated averages.

10% of radiologists' time is spent performing clinical liaison, i.e. providing advice to referring clinicians, vetting requests, etc. Nearly a quarter (23%) of their time is spent teaching or supervising residents and other staff, either during reporting sessions or in other contexts. A significant portion, 16%, is spent preparing for and attending multidisciplinary team meetings (MDTMs). Taken together, this means that ~80% of consultants' time consists of direct clinical care.[18]

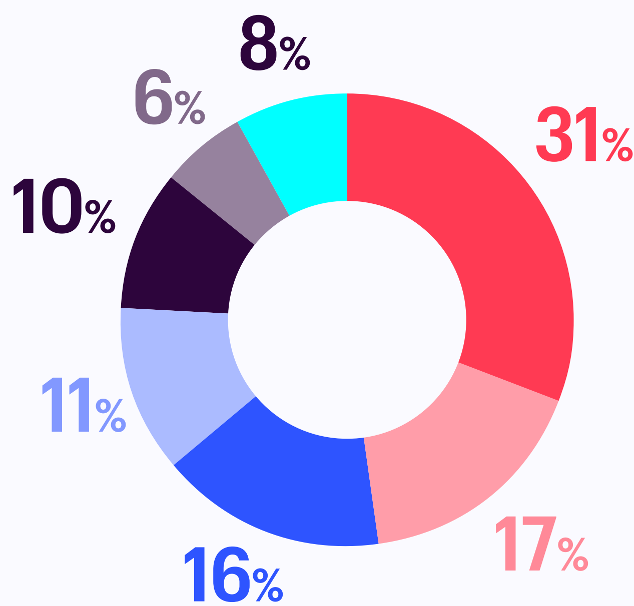
Time spent on administrative tasks is significant; this would comprise a considerable portion (though by no means all) of the time spent on CPD and mandatory training and assorted other tasks, as well as some of the time involved in MDTM preparation and attendance.[19] This administrative burden comes at the expense of direct patient care and/or service development work.

In 2015, the average clinical radiology consultant spent approximately 1 PA per week (4 hours) on MDTM preparation and attendance.[20] 16% of time spent on MDTM in 2025 equates to 1.6 PAs, or 6.4 hours. There has therefore been a 60% increase in time spent on this activity in just over a decade. There is growing recognition that MDTM time could be spent more productively, either through changes to how MDTMs are organised, including clinician attendance, and/or by provision of additional administrative support, via administrative staff or tools such as AI (see pages 47–48).



> [There is a] disproportionate amount of time spent on queries, double reporting outsourced imaging, vetting and admin tasks ([thanks to an] admin freeze).
>
> CLINICAL DIRECTOR

Breakdown of average time spent by a consultant CR



3

Resident doctors

Workforce statistics

Resident doctors are an essential component of any radiology service. There are currently 2,137 resident doctors in clinical radiology specialty training, which is equal to 32% of the total clinical radiology workforce (residents, plus consultant and SAS doctors, including locums). Over the past five years, the resident workforce in clinical radiology grew by an average of 5% per year. The resident workforce grew in each of England, Scotland and Wales over this period. However, Northern Ireland's resident clinical radiology workforce declined by an average of 1.6% per year in this time; this is highly concerning, since a reduced training pipeline ultimately results in fewer consultant radiologists and greater risks to patient care.

Length of training

The average length of clinical radiology specialty training has risen over time. The mean time to train in 2021-25 was 5.8 years, versus 5.3 years in 2006–10. (The median average training time was 5.4 years in 2021–25, versus 5 years in 2006–10.) Drivers of this trend include a greater prevalence of LTFT working amongst residents (see page 24) and people taking 'out of programme activities' (OOPA), e.g. to conduct research. Longer training lengths can be a problem, because they reduce the number of 'spaces' a trust/health board has available to allocate to new ST1 residents. Moreover, as training completion dates are spread throughout the calendar year, posts can sit empty for several months until the next round of recruitment, resulting in lost training capacity. If a resident completes training in October, their training post will sit vacant for ten months until a new ST1 is recruited.

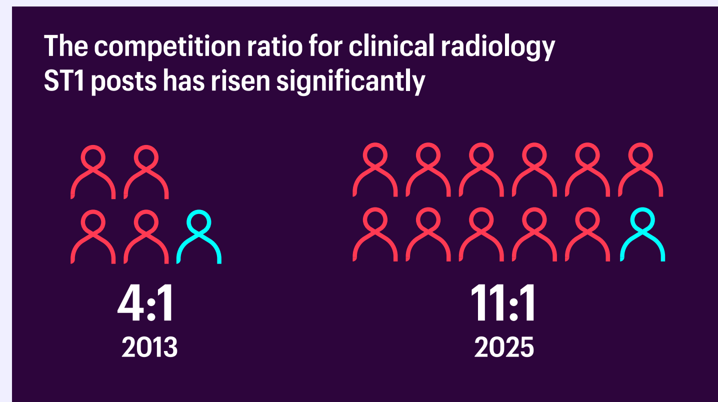
Average length of CR specialty training, past 20 years

Clinical radiology fill rates and competition ratios

Clinical radiology is a popular specialty, with fill rates for ST1 posts never falling below 99% since at least 2013.[21] The competition ratio for ST1 posts has risen significantly from approximately 4:1 in 2013 to 11:1 in 2025.[22] The challenge for the NHS in providing clinical radiology specialty training is not attracting people to the specialty, but rather providing sufficient capacity to train those who wish to become radiologists and providing sufficient training posts and post-training positions for them to enter.

This in turn is prevented by a funding system that disincentivises and/or prevents trusts/health boards from expanding their workforce and delivering a sustained increase in their capacity. In England, trusts do not always take up training posts when made available because they must meet 50% of the annual costs for each post. In the other nations, where central NHS education bodies meet 100% of the costs of a training post, this is significantly less of a problem. Moreover, national recruitment timelines are not aligned to trusts' financial calendars, further restricting trusts' ability to take up additional training posts. Furthermore, different areas within the health system deliver discordant messages: to maximise training capacity and expand the resident workforce on the one hand, and to cap or reduce spending on the other hand.

It is positive that high competition ratios for clinical radiology coincide with similarly high demand for radiology expertise in delivering care. The NHS should conduct comprehensive workforce planning that would recognise this co-occurrence as a real opportunity to ultimately reduce waiting times and improve patient care.



LTFT working amongst residents

23% of clinical radiology resident doctors work less than full time, with the average resident working 0.94 WTE. As with consultants and SAS doctors, this choice is often made to meet other commitments, personal or professional, or for wellbeing reasons. Nonetheless, more residents working LTFT means that funding is absorbed that could otherwise go towards an additional resident. This is because funding for training is allocated on a headcount basis. If training posts were instead allocated by WTE, there would be additional capacity that could potentially be used to provide additional places, rather than being lost. (This is also known as 'slot sharing'.) Not only should LTFT working be factored into workforce planning, but also funding flows should be designed to maximise existing capacity in the system.

Training attrition

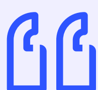
Attrition during clinical radiology specialty training is low. Across 2021-25, 94% of clinical radiology residents completed their training (whereas 6% left prior to completing training). At the regional level, there are areas of concern. In the past five years the attrition rates amongst clinical radiology residents in the West Midlands (9%), East Midlands (8%) and South West (8%) were higher than the English average (6%). Similarly, the North of Scotland saw a much higher attrition rate than the whole of Scotland (11% versus 5%) and South Wales has an 11% attrition rate. This has contributed to above-average workforce shortfalls in these areas.[23]

Post-training attrition and movements

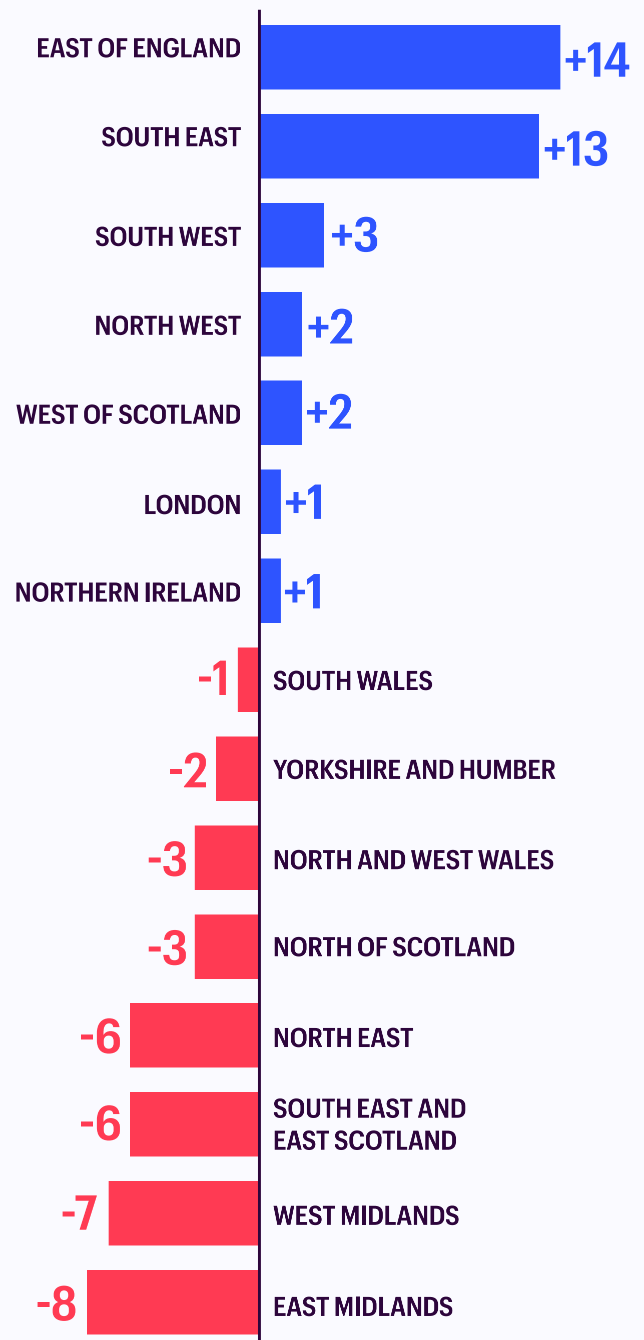
Of those who completed training in 2022, 69% were employed as a consultant within one year. This figure rose to 77% within two years and 78% within three years. In line with this, 70% of those who completed training in 2024 had become a consultant within a year. Over the past decade, the proportion of those who do not become consultants has varied between one-fifth and one-quarter even at three years after completion of training. This is a significant proportion, suggesting that post-training attrition is fairly high. Of the 2019-23 cohort of training completions, 5% are registered without a licence to practise, so are likely working in medicine abroad, 1.5% are not registered with the GMC, so have likely left medicine altogether and 5% are working for teleradiology companies.

There is a strong preference amongst residents to become a consultant in the region in which they trained. 72% of those from the 2020-22 cohort of training completions who remained in the NHS were employed as consultants in their training region within 2-3 years. However, there is also evidence that some regions are more popular than others. For instance, the East of England gained 14 consultants of this cohort who were trained in another region. On the other hand, the East Midlands saw a net loss of eight consultants to other regions, and the West Midlands saw a net loss of seven.

Many clinical radiology residents also spend a significant amount of time in their post-training grace period. 45% of those who completed training during 2025 are estimated to still have been in their grace period by the end of that year. Clearly, individuals are preferentially moving into consultant or other posts after completing training, but there remain a significant proportion who do not. Recruitment freezes may be contributing to this significant usage of the grace period, if many residents are struggling to find consultant vacancies into which they can move (see below). This is also a problem for those wanting to start clinical radiology training; the longer someone spends in the grace period following training, the longer their training post is occupied, which prevents a new resident from taking it up.



> [A] negative work environment makes attracting new staff harder.
>
> CLINICAL DIRECTOR

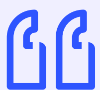


Recruitment freezes

In 2024, 19% of radiology departments reported a recruitment freeze. That number doubled to 38% in 2025. Most of these freezes affected new posts (18% of respondents) whilst others affected all recruitment, including the filling of vacant posts (12%). Freezes are now most common in Wales (57%) and England (39%) and comparatively less common in Northern Ireland (20%) and Scotland (15%). Across the country, recruitment freezes are most common in teaching hospitals (48%) and specialist hospitals (41%). Outside of these, they are more common in small acute hospitals than in large acute hospitals (33% versus 24%).

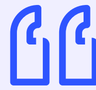
The rise in recruitment freezes is deeply concerning. They undermine the NHS's efforts to tackle backlogs for diagnosis and treatment of cancer and jeopardise initiatives to reduce cancer mortality and meet waiting times targets. In the face of huge demand for their services, there can be no justification for recruitment freezes in radiology. Freezes on administrative posts in the department are similarly nonsensical. They increase the burden on consultant radiologists and reduce the time they can spend caring for patients.

Moreover, they have detrimental effects for training. They reduce a radiology department's capacity to deliver training and supervision to residents. The fact that they are most common in teaching hospitals, where many clinical radiology residents are based, may suggest that some residents who complete their training may be struggling to find a consultant post in their region (see page 25). In the long run, both these effects could translate into poorer care for patients, with impacts reverberating long after the recruitment freeze ends.



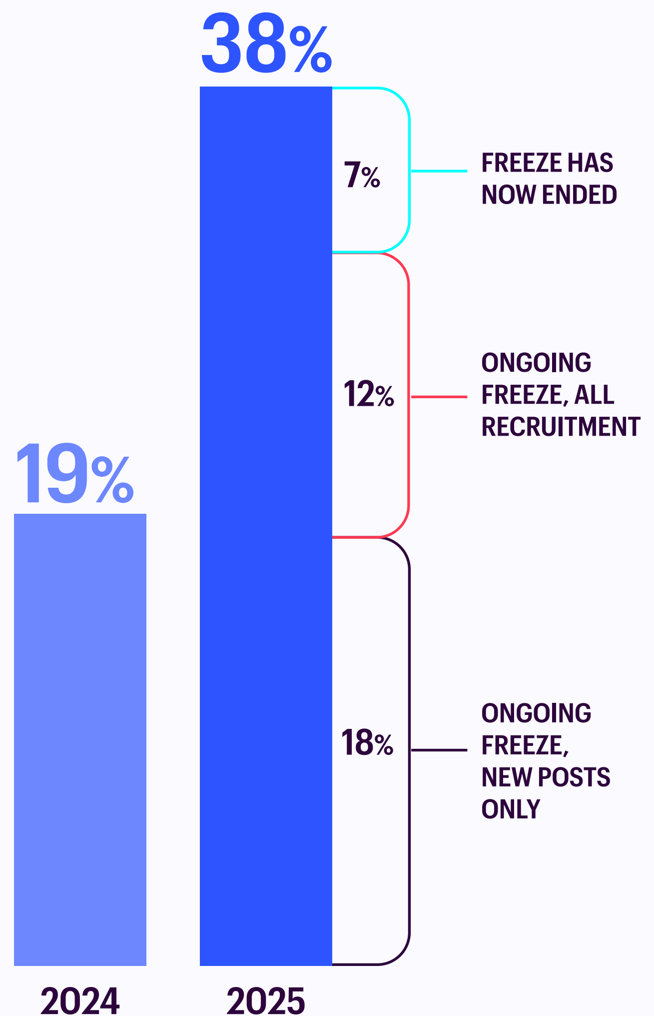
I completed my FRCR in March 2025. However, I could get a job only by December due to multiple positions being cancelled due to lack of/withdrawal of funding.

CLINICAL RADIOLOGIST



At a time when we are on our knees, haemorrhaging money on outsourcing, we are told there is a recruitment freeze and several excellent ST5s [resident doctors about to become eligible to be consultants] slip through our fingers.

CLINICAL RADIOLOGIST

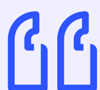


Concerns about training capacity

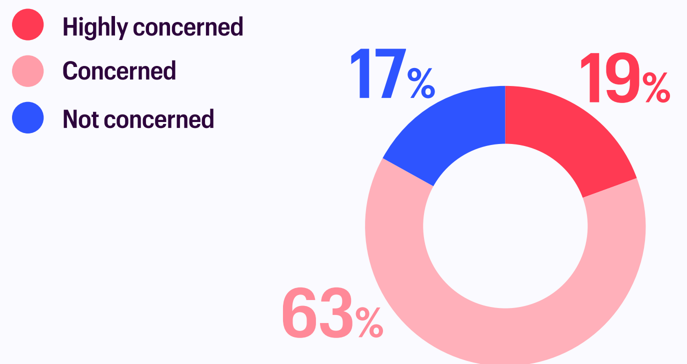
83% of Clinical Directors are concerned that workforce shortages are having an impact on clinical radiology training. While data shows that clinical radiology consultants already spend a significant proportion of their time training and teaching (see page 21), an erosion in Supporting Professional Activity (SPA) time is reducing their capacity to provide further supervision and training. Poor training infrastructure (e.g. a lack of reporting workstations) is also a likely contributing factor.

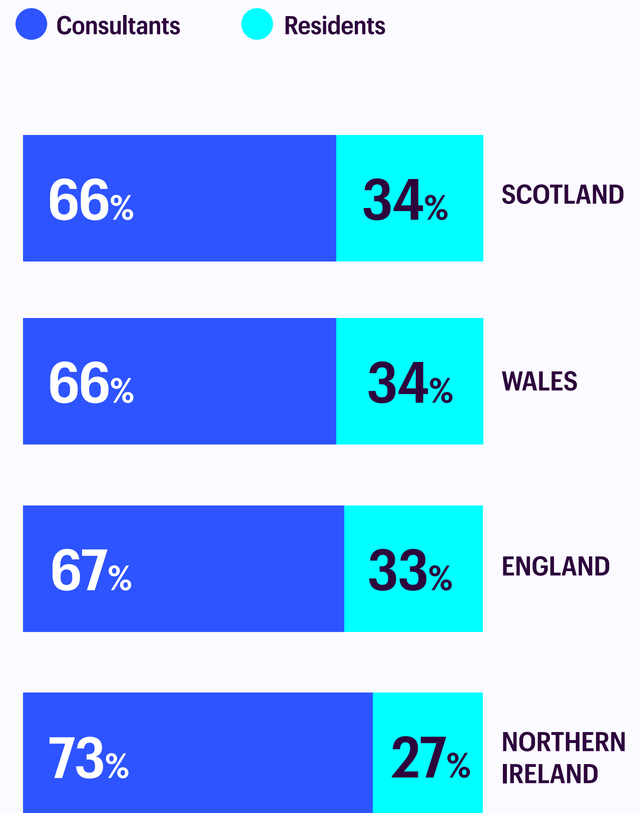
The ratio of resident to consultant varies considerably across the country. At the UK-level, there are approximately 2.3 consultants to every resident. Regions with larger ratios have, on the one hand, potential to train additional residents; on the other hand, it also suggests that they have a low pipeline of residents.

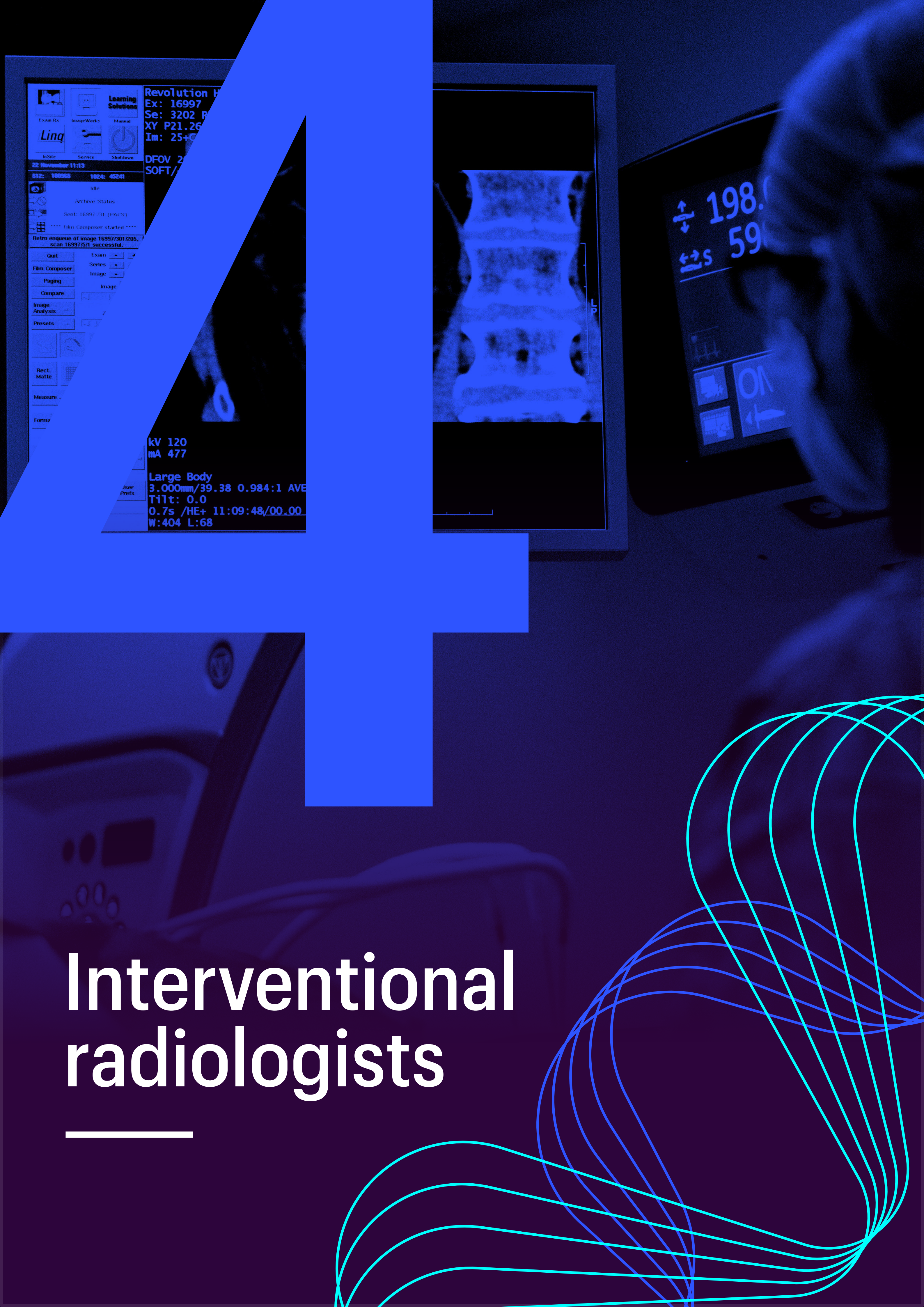
Staff shortages have reduced the time trainers can dedicate to training.[24] The productivity drive that seems to prioritise primary reporting to the exclusion of all other activities may likewise be playing a role. Thanks to workforce shortages, many trainers also feel less able to provide high-quality training and supervision than they have previously or would otherwise be able to deliver. This is hugely concerning, since resident doctors are the consultants of tomorrow who will need to lead imaging services and radiology departments. It is vital that their training is prioritised and protected. Lifting recruitment freezes to radiology posts would increase training capacity and go some way towards addressing this concern (see page 26), as would additional, protected SPA time for trainers (see page 42).



> [I] have got very little one-on-one training time with consultants throughout my training programme... [this is] understandable as they are so busy, but it has had a negative impact.
>
> CLINICAL RADIOLOGY RESIDENT DOCTOR







4 Interventional radiologists

Interventional radiology workforce growth

The UK has 800 WTE substantive interventional radiology (IR) consultants.[25] The IR consultant workforce has grown 2.6% since 2024, and average workforce growth is 4% per year over the past five years. With locums included, these figures rise to 862 WTE, with 2024–25 annual growth of 4.2% and five-year average annual growth of 4.7%.

Interventional radiologists use their expertise in medical imaging to carry out a wide range of image-guided procedures on multiple body systems. For the purposes of the census, interventional radiologists are grouped by their primary interest into vascular, non-vascular, paediatric and interventional neuroradiology (INR). In truth, most interventional radiologists operate across multiple body systems. Recently there has been an expansion in those specialising in interventional oncology. As of 2025, the UK has 545 WTE interventional radiologists with a primary or secondary interest in vascular IR, 184 interventional radiologists with a primary/secondary interest in non-vascular IR, 123 INRs, and 14 with a primary/secondary interest in paediatric IR.

NHS England collects and publishes data for IR procedural activity. Average annual growth in the number of IR procedures over the past three years is 4%.[26] This rate of growth is approximately equal to that of the IR consultant workforce itself. However, it is important to note that poor coding means that a large amount of IR activity is not accurately captured in the NHSE data. This means that true activity is almost certainly exceeding IR workforce growth. Indeed, all other indications show that there is a significant workforce shortage in IR (see page 34). Better data is vital if the NHS is to quantify the gap between demand and capacity and develop a credible plan to close that gap.

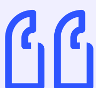
> IRs are not at full establishment, which has impacted on [our] ability to cover on-call rota and the wellbeing of staff.
>
> CLINICAL DIRECTOR

Interventional radiology workforce distribution

The UK has 12.4 interventional radiology consultants per million population. This workforce is unevenly distributed, however. Regions with fewer consultants per head of population are at greater risk of insufficient service provision, with delays to patient care or inequities in access to IR treatments more likely.

IR consultants per million population, 2025

Region	IR consultants per million population
LONDON	18.5
YORKSHIRE AND HUMBER	15.1
NORTH WEST	14.0
SOUTH WALES	13.1
WEST OF SCOTLAND	12.6
SOUTH EAST	12.1
WEST MIDLANDS	11.7
NORTHERN IRELAND	11.5
SOUTH WEST	11.1
SOUTH EAST SCOTLAND	10.2
NORTH AND WEST WALES	10.1
EAST OF ENGLAND	9.3
NORTH EAST	9.2
EAST MIDLANDS	8.7
EAST OF SCOTLAND	8.0
NORTH OF SCOTLAND	3.1



> IR short staffing makes it difficult to provide 24/7 cover, particularly because we are increasingly being asked to cover shortfalls in this area from surrounding trusts.
>
> CR CLINICAL DIRECTOR

Interventional radiology demographics

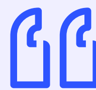
The median age of an interventional radiology consultant in 2025 is 46 years. This has not changed over the past decade. As noted above, the interventional radiology workforce is predominantly male and only 12% are women (see page 15). This may change with time: 20% of interventional radiologists who joined the GMC register in 2025 were women.

69% of interventional radiology consultants are UK medical graduates. Nearly one-quarter (24%) gained their PMQ in a non-EEA country, whilst 7% gained their PMQ from an EEA country.

Interventional radiology consultant attrition and forecast retirements

In 2025, attrition amongst substantive interventional radiology consultants was 3.4%. This equates to 33 leavers (27 WTE), 78% of whom were under 60 years of age. The median age of leavers was 52 years. As with the whole of CR, average attrition amongst those who received subspecialty training in interventional radiology in the UK is lower than that of those who completed their training overseas.

One in five (21%) interventional radiology consultants are currently forecast to retire by 2030. This rises to 40% by 2035. Forecast retirements are greatest in Northern Ireland (34%) and smallest in Scotland (12%). Amongst non-vascular interventional radiologists, the average attrition rate is 3.2% per annum and 21% are forecast to retire within five years. For vascular IR, these figures are 3.5% and 20%, respectively.



> We are delivering, but potentially at huge cost for the staff.
>
> **CLINICAL DIRECTOR**

Interventional radiology: key workforce metrics, 2025

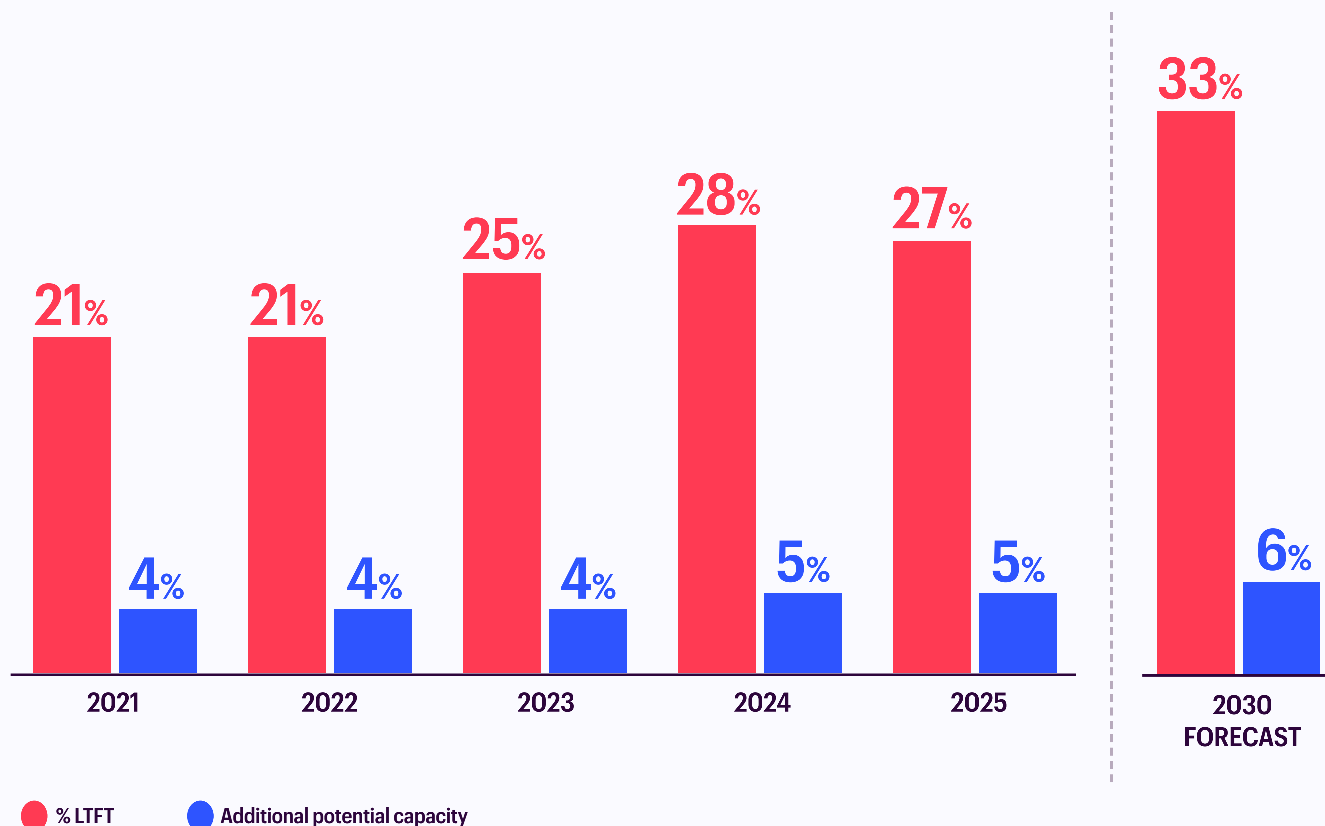
	Whole-time equivalents (WTEs)	Potential additional capacity (if no LTFT)	Locum share %	Average annual attrition, past 5 yrs	Average annual growth, past 5 yrs	Forecast retirements, next 5 yrs
IR vascular	502	4%	8%	3.5%	3.5%	20%
IR non-vascular	172	8%	7%	3.2%	5.7%	21%
Interventional neuroradiology	123	1%	8%	3.8%	8.6%	16%

Interventional radiology working patterns: LTFT and programmed activities

27% of IR consultants work LTFT. This is a smaller share than all clinical radiology consultants (see page 19); consequently, potential additional capacity is also lower, at 5%. One cause of this may be the need for additional PAs in interventional radiology to enable sufficient cover for 24/7 services.

The average interventional radiology consultant has 10 PAs, of which 8.5 are direct clinical care (DCC) and 1.5 are SPAs. This is more than the average for a diagnostic radiology consultant, who has 9.5 PAs (8 DCC and 1.5 SPA). The average interventional radiology consultant has seen a 25% average decrease in their SPA time since 2015. This limits their capacity to conduct service improvement work and to provide training (see page 42).

LTFT working, IR consultants, past five years



Interventional radiology service provision

87% of trusts/health boards are operating an interventional radiology service of some description. However, only 51% of these operate their service on a 24/7 basis. Moreover, only 42% have an on-call rota with the minimum 1:6 frequency. 98% of teaching hospitals operate an IR service, and four-fifths of these operate that service on a 24/7 basis. By contrast, just 75% of small acute hospitals have an interventional radiology service; only 6% of these operate a 24/7 service and only 11% have a 1:6 on-call rota.

Put together, these data mean that 20% of interventional radiology services in the UK are considered inadequately provisioned. An adequately provisioned service would have a fully staffed 1:6 on-call rota, and either also be available 24/7, or have formal, agreed pathways for patients to be transferred to another trust/health board for interventional radiology treatment (which would likewise provide 24/7 patient access to IR treatment).

Our IR only runs 9–5 Monday–Friday, so some patients have delayed procedures or [experience] delays involved in transfer to other hospitals.

CLINICAL DIRECTOR

Spotlight on interventional neuroradiology

INR is the procedural side of neuroradiology. A major component of interventional neuroradiologists' work is mechanical thrombectomy to treat acute ischaemic stroke, although this is also undertaken by some vascular interventional radiologists. Another major component of interventional neuroradiologists' work is cerebral aneurysm treatment.

In mechanical thrombectomy, an interventional neuroradiologist removes a blood clot in an artery supplying the brain to restore blood flow. Evidence suggests that thrombectomy is the most effective single treatment for patients suffering from acute ischaemic stroke (large vessel occlusion), if it is performed within sufficient time. Compared to other treatments, patients receiving thrombectomy are more likely to survive with less disability.[27]

INR services are mostly based in interventional neuroscience centres at major hubs. Effective and rapid transfer arrangements to enable 24/7 access to services are essential if patients are to be treated as quickly as possible. This is vital for mechanical thrombectomy, since too long a delay in receiving treatment can render it ineffective.[28]

According to the national stroke audit, in England, there are 25 neuroscience centres. There is one INR service in Northern Ireland, one in Wales, and three in Scotland. The single INR service in Northern Ireland is not available 24/7. Although INR services are available in Scotland, no single centre has the recommended staffing levels for 24/7 provision. One Welsh Health Board operates an INR service, which is not available 24/7 and transfers patients to England outside of hours. In the UK, of those trusts/health boards that operate an INR service, 63% are now available 24/7. Less than half (47%) have a fully staffed 1:6 on-call rota.

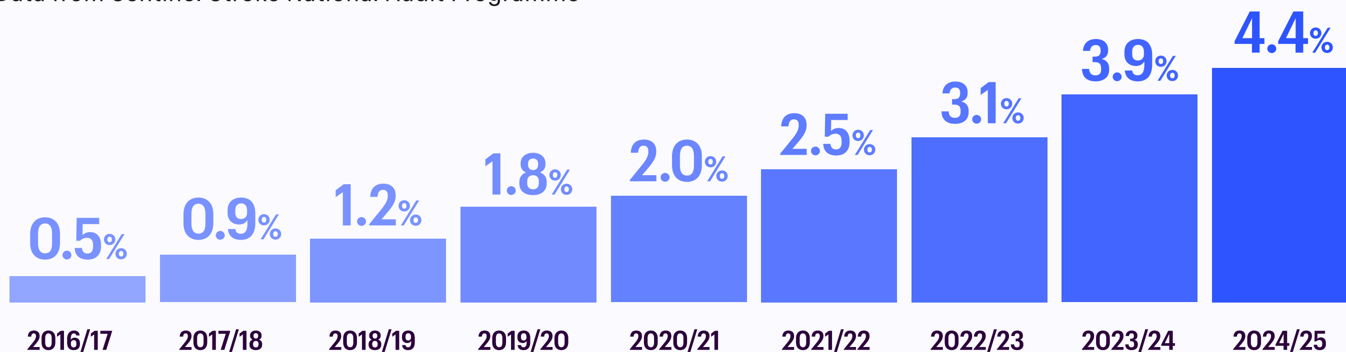
Nonetheless, 24/7 provision of INR has increased in recent years.[29] This has been driven by national initiatives to ensure there is 24/7 coverage for mechanical thrombectomy and has been made possible by a welcome increase in the number of INR consultant posts in the UK over the past five years: in that time, average annual growth in the workforce was 8.6%. Currently, the UK has 123 WTE consultant interventional neuroradiologists.[30] England has 109, Northern Ireland has 2, Scotland has 8 and Wales has 4 WTE INR consultants.

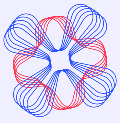
In addition, credential learning was established by the RCR and the GMC to provide a robust training pathway for non-INR consultants to train in and then provide mechanical thrombectomy services in the UK. It includes the skills required to perform mechanical thrombectomy, but also the prerequisite radiological skills to evaluate complex imaging and make diagnoses. This will help to further expand access to this vital treatment.

In 2024, 4.4% of stroke patients received thrombectomy.[31] This figure has risen by nearly nine times, from 0.5% in 2016/17. In the past decade, sustained investment in the INR workforce has directly resulted in over 3,400 more patients receiving lifesaving and independence-preserving thrombectomy than before.[32] Therefore, additional investment in and support for INR services would accelerate progress towards the NHS's ambition for 10% of stroke patients in England receiving thrombectomy treatment.[33]

Significant and sustained funding for interventional neuroradiology means significant progress towards a 24/7 mechanical thrombectomy service in all English neuroscience centres has been made. This nationally driven resourcing must be maintained to guarantee progress is built upon and INR services are sustained longer-term.

Mechanical thrombectomy rates, UK stroke patients, past decade
Data from Sentinel Stroke National Audit Programme

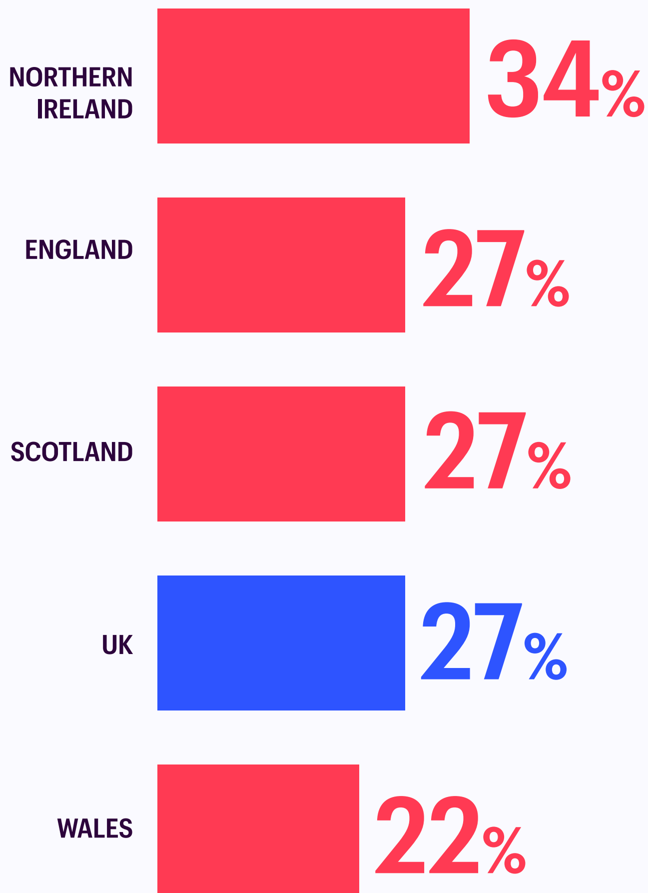




The workforce shortfall in interventional radiology

Amongst vascular and non-vascular interventional radiologists, there is a consultant shortfall of 27% as of 2025.[34] This is equal to 318 WTE consultants. England has a 27% shortfall, Northern Ireland a 34% shortfall, Scotland a 27% shortfall and Wales a 22% shortfall. Regional shortages can be startlingly large, as in the North of Scotland (62%) and the North East of England (39%).

Vascular and non-vascular IR consultant workforce shortfall by country, 2025



The impact of Interventional radiology workforce shortfalls

Clinical Directors express widespread concerns for the effects of staff shortages in IR on patients over the past twelve months. 86% say that interventional radiology procedures are delayed or cancelled due to staff shortages and 83% say that patient discharges can be delayed. Over three quarters (77%) say that patients' conditions deteriorate as a result of staff shortages delaying treatments. Patients can also be diverted to other hospitals if there is not the staff available to treat them (reported as a problem by 58% of Clinical Directors).

Lack of access to interventional radiology treatment can have major consequences for patients. One vital service provided by interventional radiology is limb-sparing procedures in patients with peripheral vascular disease. For example, peripheral angioplasty and stenting procedures are operations that restore adequate blood supply to limbs, including for the ~20% of patients with chronic limb-threatening ischaemia, thereby preventing the need for amputation.[35] Data from NHS England shows that an average of ~19,900 amputations were carried out per year from 2008–09 to 2021–22.[36] There is also evidence that there are significant regional variations within England in the incidence of non-traumatic lower limb amputations, with the highest rate in the North East.[37] Limb-sparing treatment is time sensitive.

Delays to IR procedures caused by workforce shortfalls are affecting timely access to limb-saving procedures (for both inpatient and outpatient cases) and potentially contributing to unnecessary limb amputations. Together, these data suggest that there is significant potential to further reduce the number of limb amputations, thereby increasing patients' quality of life, with targeted growth and investment in the IR workforce.

Proportion of Clinical Directors concerned about the following impacts of interventional radiology workforce shortfalls

86% Procedures delayed or cancelled

83% Delayed discharges

77% Deterioration in patients' conditions

62% Unable to maintain 24/7 cover

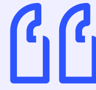
60% Reduction in training opportunities

58% Patients diverted to other hospitals

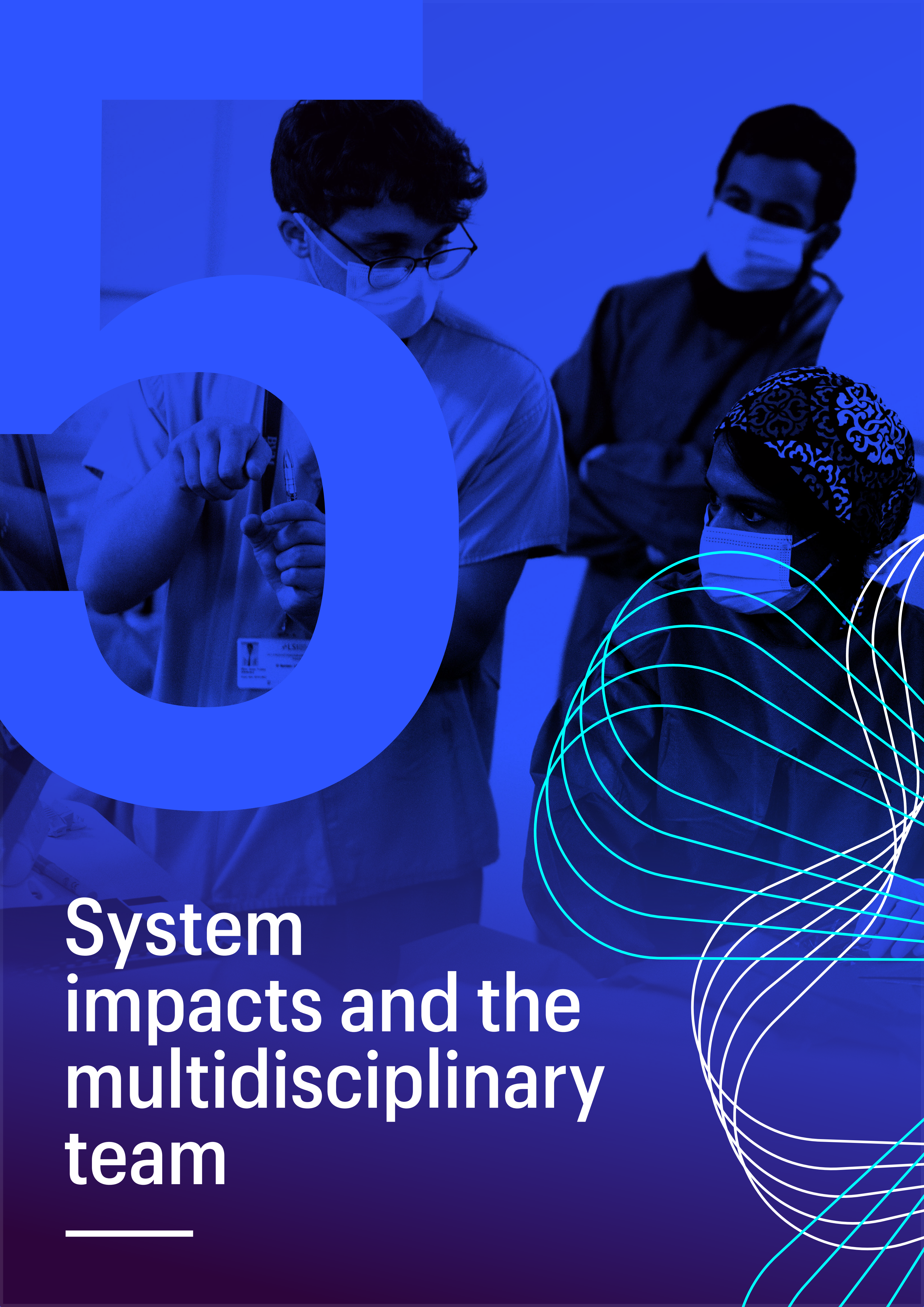
Staffing shortages also affect the wider system. 62% of Clinical Directors say that they are unable to maintain 24/7 interventional radiology services because they lack the staff to do so. Furthermore, 60% of Clinical Directors say that staff shortages result in fewer training opportunities for residents, thereby threatening the future interventional radiology workforce as well as current patient care.

Clinical Directors in small acute hospitals are most likely to be concerned. 79% are concerned about the effects of interventional radiology staff shortages on training opportunities, 93% are concerned about delayed patient discharge and 94% are concerned about procedures being delayed or cancelled – all notably higher than the equivalent figures for all hospitals.

These data show that significant additional investment in workforce, resourcing, research and planning is necessary to ensure all patients can benefit from interventional radiology when they need it.



> A lack of suitably trained IRs has reduced our service capacity to the extent that patients must be outsourced to hospitals outside our trust. This creates delays in care pathways and reduces equity of access… [it] is also reducing our training capabilities as our case load and variability has reduced greatly.
>
> **CLINICAL DIRECTOR**



5

System impacts and the multidisciplinary team

The findings of the 2025 census have implications for the wider diagnostics workforce, within and beyond clinical radiology. Staff shortages have real effects for patients and for the healthcare system.

Despite these challenges, clinical radiologists are striving to innovate and improve the quality of care they can provide – though their ability to make large-scale, lasting changes that would put services on a sustainable footing is limited.

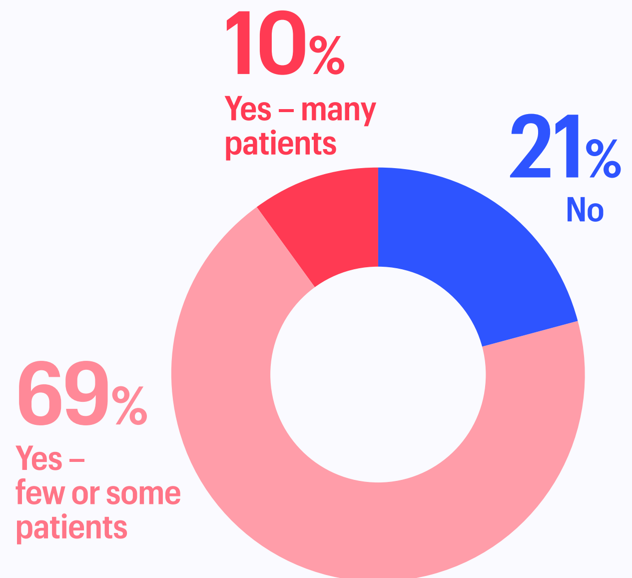
What are the effects of workforce shortfalls?

Workforce shortages result in patients' conditions worsening

Four-fifths (79%) of radiology department Clinical Directors report that they are aware of patients whose conditions have worsened because of delays caused by staff shortages. Diagnosis via imaging is often a necessary first step before treatment can commence, so delays to diagnoses can result in serious consequences for patient outcomes. In some settings, every month's delay in cancer treatment, for example, can raise the risk of mortality by approximately 10%.[38]

92% of Clinical Directors are concerned that shortages are resulting in backlogs and delays for patients, and just one in five (19%) report they have enough consultant clinical radiologists for safe and effective patient care. Over one million diagnostic imaging studies in 2024/25 were not reported within the 28-day target, including nearly half a million complex scans. Moreover, throughout 2025, 22% of patients waited for longer than six weeks to receive a scan, against a target of 1%.[39] This is clear evidence of the impact of clinical radiology workforce shortages on patients.

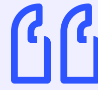
Clinical Directors aware of patients whose conditions worsened due to delays from workforce shortfalls



Clinical Directors' wider concerns

98% of Clinical Directors are concerned for morale and the risk of burnout amongst their staff.[40] Moreover, 92% report having insufficient time for service improvements and 87% report having insufficient time for clinical leadership. Many are also concerned about the impacts on training (see page 27). Teaching hospitals and specialist hospitals are less likely to be concerned about these effects than other hospitals.

As demand continues to outpace capacity, clinical radiologists prioritise direct patient care and less urgent, but no less vital, work has to be deprioritised. There is little capacity in the system to make large-scale changes or long-term improvements to the system that would result in better experience and outcomes for patients. Over time, this means that the whole service deteriorates.



> Radiologists get pulled in different directions to cover 'hot CT', emergency reporting, faster diagnosis primary care reporting, multiple MDTs and then teaching and training. This is leading to dissatisfaction and burnout among the staff.
>
> CLINICAL DIRECTOR

Clinical Directors concerned about the effects of workforce shortfalls, 2025

98% Concerned

92% Concerned

87% Concerned

Workforce pressures and radiologists' time

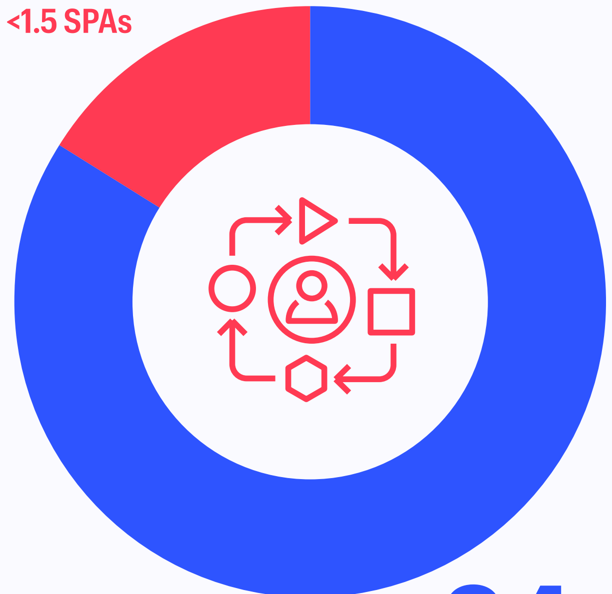
The concerns shared by Clinical Directors are confirmed by analysis of clinical radiology consultants' job plans. Over many years, their time has become increasingly pressurised, with activities outside of direct clinical care being deprioritised to meet rising patient need. This, though, has negative consequences into the longer term for training, innovation, and care quality.

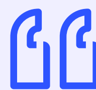
Supporting Professional Activities (SPAs) are non-clinical activities formally worked into consultants' job plans, and include teaching, medical education, CPD, leadership, research, service improvement and preparation for appraisal or revalidation. They underpin clinical care and contribute to the quality of the individual clinician and the service. In the past decade, substantive clinical radiology consultants have experienced a 25% decrease in the median number of SPAs in their job plans. In 2015, the average consultant had 2 SPAs in their job plan (8 hours) whereas in 2025 they have 1.5 SPAs (6 hours).

This erosion is partly explained by newer cohorts of consultants being given fewer SPAs in their job plans than those appointed in earlier years; 38% of substantive consultants who joined the workforce in the past five years have fewer than 1.5 SPAs, versus 35% of all consultants. The risks to patient care, staff wellbeing and service innovation are therefore backloaded, with significant potential challenges still to emerge. This also has important implications for staff retention (see page 17).

16% of CR consultants have fewer than 1.5 SPAs in their job plan, in contravention of RCR and AoMRC guidance.[41,42] In 2015, this figure was just 11%. Simply because they are not written into consultants' job plans does not mean that professional commitments outside of direct patient care do not exist. Moreover, many consultants will need more than 1.5 SPAs. Indeed, 1.5 is the minimum for revalidation and someone with 1.5 SPAs or fewer is not equipped with sufficient time for other activities, such as training or clinical governance. Increased administrative burdens and rising demand for patient care encroach onto allocated SPA time. This means that many consultants spend a significant portion of their free time meeting their SPA commitments and additional responsibilities, which contributes to elevated levels of stress and burnout.[43]

Proportion of CR consultants with fewer than 1.5 supporting professional activities, 2025





I've stopped being a trainer due to lack of time.

CLINICAL RADIOLOGIST

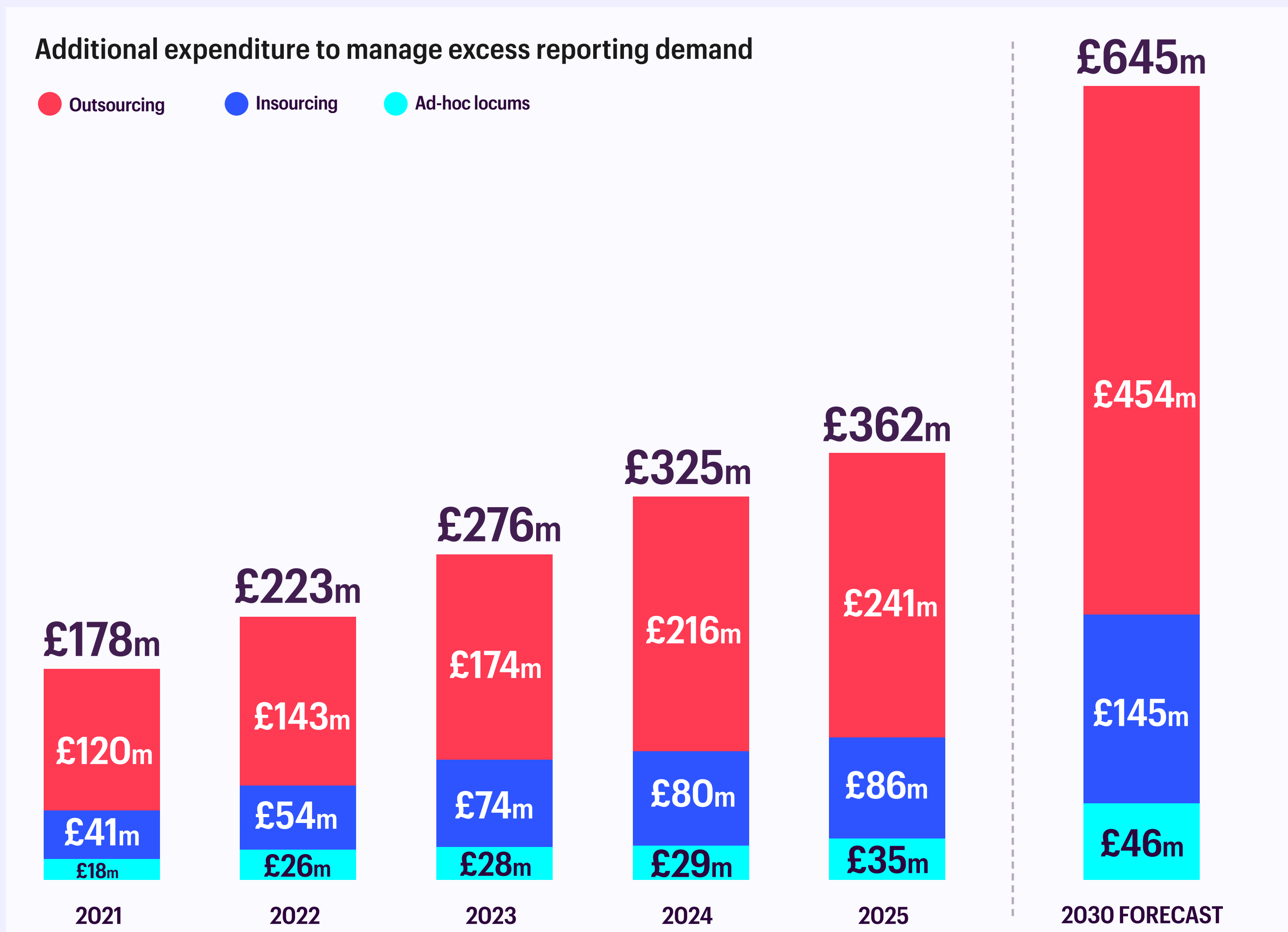
Back to contents

The cost of workforce shortfalls

Clinical Directors estimate that on average just 62% of CT scans and 66% of MRI scans are reported by their own trust/health board staff within contracted hours. The remainder are either insourced (i.e. paid staff overtime) or outsourced (i.e. teleradiology companies are contracted to report scans on behalf of the trust/health board). Outsourcing accounts for approximately 28% of CTs and 24% of MRIs, whilst insourcing accounts for 10% of CTs and 11% of MRIs. Ad hoc locum staff can also be employed via an agency to provide additional reporting capacity.

In 2025, the total cost of these measures rose to £362 million – up 11% (approx. £37m) on the year before. Over the past five years, annual expenditure has risen by 12% on average. The 2025 spend equates to 3,033 full-time clinical radiology consultant salaries – far greater than the current consultant shortfall (2,313 WTE). This underscores the short-sightedness of a system that forces reliance on costly alternatives, rather than incentivising and enabling the more sustainable and cost-effective option of workforce development.

Outsourcing spend accounts for two-thirds of these costs and rose to over £241 million in 2025. The average annual increase in outsourcing costs over the past five years is 13.5%. If current trends continue, the NHS's outsourcing spend alone will reach £454 million by 2030. This is despite outsourced scans still being in the minority of all scans reported. This supports the suggestion that the NHS should work towards reducing its reliance on outsourcing and instead redirecting its funds towards reporting that represents better value for money; this certainly includes contracted reporting time, and may also include networking and insourcing.



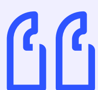
The effects of increased reliance on outsourcing

However, even aside from the financial considerations, outsourcing is not a cost-free exercise. 87% of Clinical Directors report that outsourcing resulted in higher costs than had been budgeted for. But more worrying are their concerns about the quality of the reports they receive (86% concerned) and the additional workload that is created, e.g. by quality concerns necessitating double checking of reports or rereporting (90% concerned).

This is a complex issue. Many NHS radiologists additionally do some teleradiology work. Yet a lack of trust in externally produced reports, independent of the identity of the reporting radiologist, drives greater queries by the referrers which leads to additional work for the NHS departments. There is also a perception that reporting styles differ between the two environments, which may contribute to lower levels of trust. Further factors driving quality concerns include medicolegal considerations, as well as challenges in communication between the NHS provider and the teleradiology company. Indeed, 89% of Clinical Directors report challenges in communication between the teleradiology provider and the referrers and 73% report technical issues.

Many Clinical Directors are concerned that increased reliance on teleradiology is having an impact on CR specialty training; this may be because it results in fewer suitable, less complex scans available for residents to report. 55% of Clinical Directors are concerned that outsourcing is limiting training opportunities. Teaching hospitals, where many resident doctors are based, outsource fewer scans compared to other hospitals, which may suggest that this problem has a disproportionate effect on residents based in or rotating through smaller hospitals. The outsourcing of less complex scans may also be resulting in increased cognitive load on radiology consultants working in NHS departments, who report a greater share of complex scans as a result.

The fact that the outsourcing spend and volume is so great, in spite of Clinical Directors' concerns, likely reflects the fact that this is a choice forced upon trusts/health boards because of their lack of reporting capacity. It underlines the scale of the workforce crisis in radiology.



> [We have a] huge spend on outsourcing, with the inevitable impact of increased need for scan reviews... and reduced quality due to lack of knowledge of local patient pathways.
>
> CLINICAL DIRECTOR

Proportion of Clinical Directors concerned about the impact of outsourcing, 2025

Concern	%
ADDITIONAL WORKLOAD (E.G. DOUBLE-CHECKING REPORTS)	90%
IMPACT ON COMMUNICATION WITH REFERRERS	89%
HIGHER COSTS THAN BUDGETED	87%
QUALITY CONCERNS	86%
TECHNICAL ISSUES (E.G. IT INTEGRATION)	73%
EXTRA CONTRACT MANAGEMENT TIME	72%
FEWER TRAINING OPPORTUNITIES	55%

Estimate of the extent of teleradiology work amongst NHS clinical radiology consultants

The RCR estimates that around three in ten clinical radiology consultants who work in the NHS also do some part-time work for teleradiology companies. Therefore, a significant proportion of NHS scans that are sent to teleradiology are potentially reported by doctors primarily employed by the NHS. The reasons for taking up teleradiology work are various, but many radiologists value the independence and flexibility can offer. There are also push factors that may make individuals favour a teleradiology company as an employer over the NHS; addressing these would help the NHS to keep more of its radiology expertise in-house.

The GMC register suggests that 654 clinical radiology consultants do most of their work for teleradiology companies, as indicated by the designated body on the register. This is more than double the number compared to five years ago, indicating strong growth in the UK teleradiology sector. It also equates to approximately 10% of all clinical radiology consultants registered with a licence to practise in 2025. Three-quarters of this cohort are international medical graduates (n=489). As of 2025, 21% of IMGs on the specialist register for radiology with a licence to practise have a teleradiology company as their designated body. By contrast, 4% of UKMGs with a licence have a teleradiology company as their designated body.

CR consultants by region of PMQ and GMC designated body, 2025

UK MEDICAL GRADUATE

Designated body	%
Trust/health board	93%
Teleradiology	4%
Other	3%

INTERNATIONAL MEDICAL GRADUATE

Designated body	%
Trust/health board	75%
Teleradiology	21%
Locum agency	4%

Outsourcing and teleradiology: what should happen?

Teleradiology services can help trusts/health boards manage demand. They can support 24/7 services by providing out-of-hours reporting and can provide additional capacity for services during surges in demand. For individual radiologists, it can be a source of additional, flexible working with benefits to wellbeing, morale, and retention within the NHS.[44]

Yet Clinical Directors are clear in the evaluation that there are several negative consequences to the use of outsourcing and teleradiology. Moreover, current expenditure trends are clearly unsustainable. They are only possible because funds are transferred from core NHS activities like recruiting and training and because radiologists are being incentivised to move from one working environment to the other. This leaves the NHS, and its patients, vulnerable.

The NHS has become too reliant on outsourcing and should act to reverse this trend. Teleradiology has a place, but it should be used to supplement, rather than replace, regular NHS radiology services. Measures to reduce reliance could include greater use of imaging networks to distribute excess demand for reporting or to provide the resources for more resilient out-of-hours NHS services. This will only be possible if individual radiologists are incentivised to remain in the NHS, rather than being perversely incentivised to leave, and therefore will ultimately require investment in recruitment and retention.

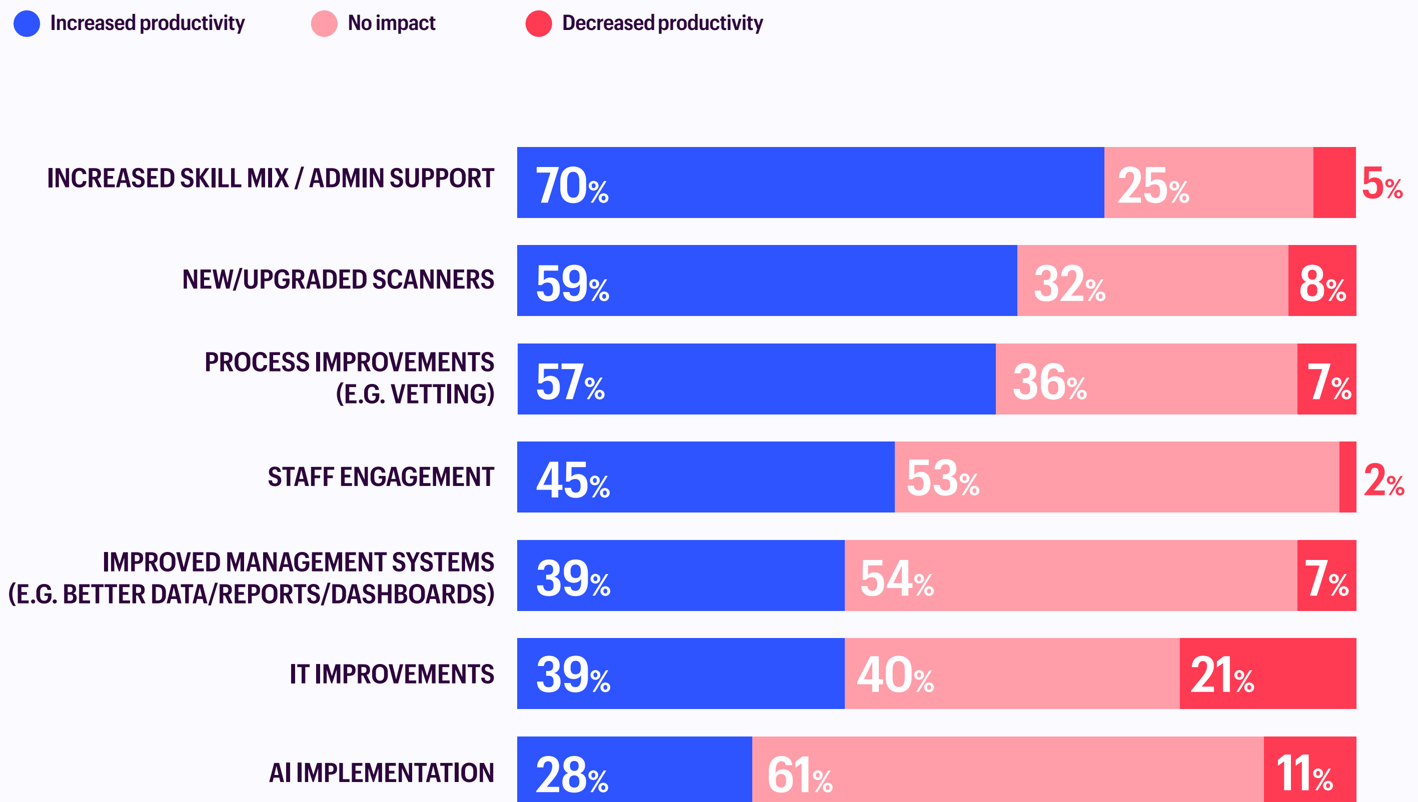
How are clinical radiologists responding to these challenges?

Improvement initiatives

Encouragingly, nearly all (97%) radiology departments implemented at least one initiative aimed at boosting their productivity in 2025. Of these, the most common was increased use of skill mix and/or additional administrative support, which was implemented by 79% of departments. Next most common were new or upgraded scanners (72%), process improvements (e.g. vetting procedures, 69%) and staff engagement measures (68%). Even the least common, IT system improvements, was implemented by over half (53%) of departments.

By excluding those who did not implement each type of improvement, it is possible to assess how effective they each were in improving departmental productivity. Clinical Directors were most positive about skill mix/admin support, with 70% reporting it had increased their productivity. The majority reported that process improvements and new/upgraded scanners had likewise raised departmental productivity (56% and 59%, respectively). By contrast, artificial intelligence (AI) implementation and management systems were least likely to lead to change, with 61% and 54% respectively reporting no impact on departmental productivity.

Clinical Directors were least likely to report a positive effect from AI implementation (28%). They were most likely to report a negative effect from IT initiatives, with 22% saying they reduced their productivity.



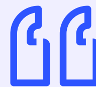
The use and impact of artificial intelligence

AI is increasingly common in radiology. 75% of radiology departments are now using AI tools in various capacities. AI is most used to support image interpretation, i.e. to aid radiologists in identifying features of interest when analysing scans; this is in place in 58% of departments. Next most common are AI tools to support image acquisition, in place in 41% of departments (though this may be an underestimate, since the technology is often integrated within the scanner itself so may go unnoticed). Just over a quarter (26%) of departments are using AI in image prioritisation, i.e. to triage scans and flag those that urgently need reporting. The least common use cases are those centred around administrative tasks: staff scheduling and rotas (13% of departments), patient referral/appointment management (12%) and report drafting (11%).

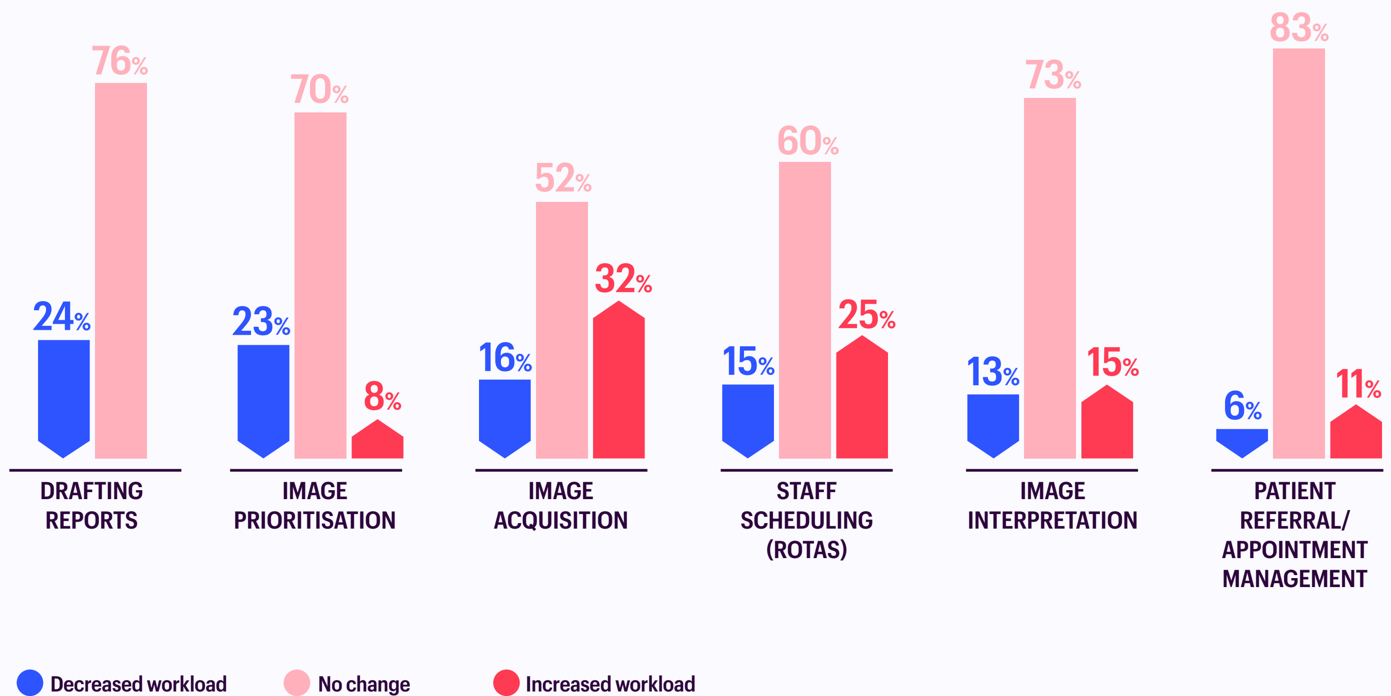
Removing those who are not using each type of AI tool reveals how effective each currently is in reducing radiologists' workloads. Whilst a significant proportion of radiology departments are using AI, a far smaller proportion report that it has had a positive effect on their workloads.

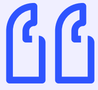
Across every use case, more than three-quarters of Clinical Directors report that AI tools are either having no impact or are increasing their workloads. The use case for which they are most likely to report any impact whatsoever is image acquisition (49% reported some impact), whereas the use case for which they are least likely to report any impact is patient referral (17% reported some impact).

Clinical Directors were most positive about the effects of AI tools to aid in drafting reports. Of those using them, 24% said these tools reduced their workload. They were similarly positive about AI image prioritisation tools (23% reported reduced workload). On the other hand, they were least positive about AI tools for patient referral and appointment management (6% reported reduced workload). In the case of AI tools for staff scheduling and for image acquisition, more Clinical Directors



> We need AI for admin tasks, as [we have] no admin on-site at all.
>
> CLINICAL RADIOLOGIST





I use AI to help report MRI prostates. It probably helps, though the time taken to get it implemented was long and the process convoluted.

CLINICAL RADIOLOGIST

The data on how clinical radiology consultants spend their time (see page 21) supports the notion that there is both scope and need for AI tools to reduce consultants' administrative burden and enable them to spend more time directly caring for patients, driving service improvements, delivering training or conducting research. Of course, additional time would also be required by consultants to oversee and monitor the AI system itself.

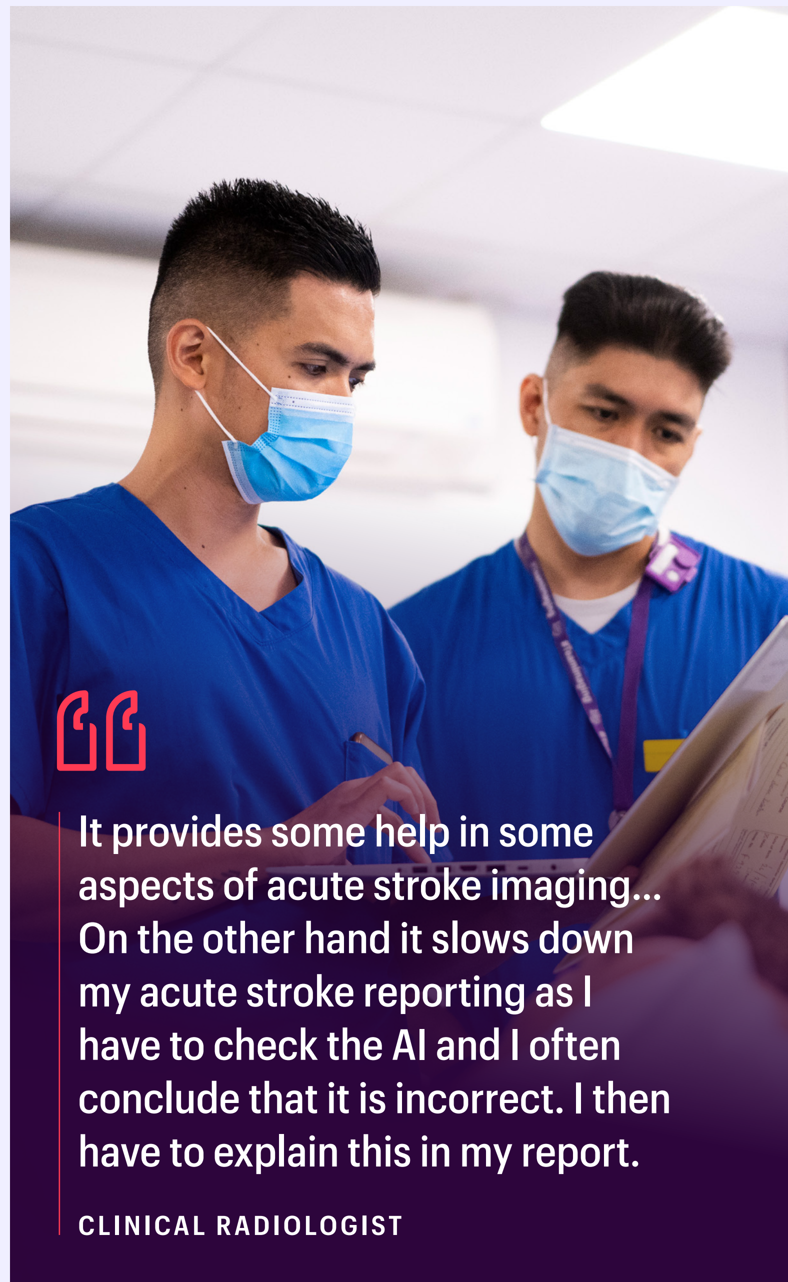
For clinical AI applications, usage should follow from clear evidence of benefit to patients and the system. Trusts/health boards will continue to require targeted support in selecting and deploying these tools.

reported an increased workload than a decreased workload. In the case of image acquisition, increased scanner throughput may result in a larger volume of scans requiring reporting, affecting the workload of radiologists, as well as increased workload for radiographers and others in the radiology team.

It is notable that Clinical Directors are most positive about the AI application that is also the least commonly used: report drafting. And for the most common use case, support for image interpretation, Clinical Directors are almost equally likely to report an increased workload (15%) as they are a decreased workload (13%). There is a question of the extent to which AI tools for image interpretation and prioritisation are or could help to reduce the backlog of images to report, as opposed to simply reorder the list by deprioritising likely non-urgent images. In some cases, AI for image interpretation may be increasing the time taken for a radiologist to report each scan because the radiologist is presented with more information to consider; the trade-off in this scenario would be against increased rates of detection of early-stage disease. At this stage, it does not appear that AI tools in radiology are simultaneously enabling faster and more accurate reporting, detection of more disease, and a reduction in the backlog.

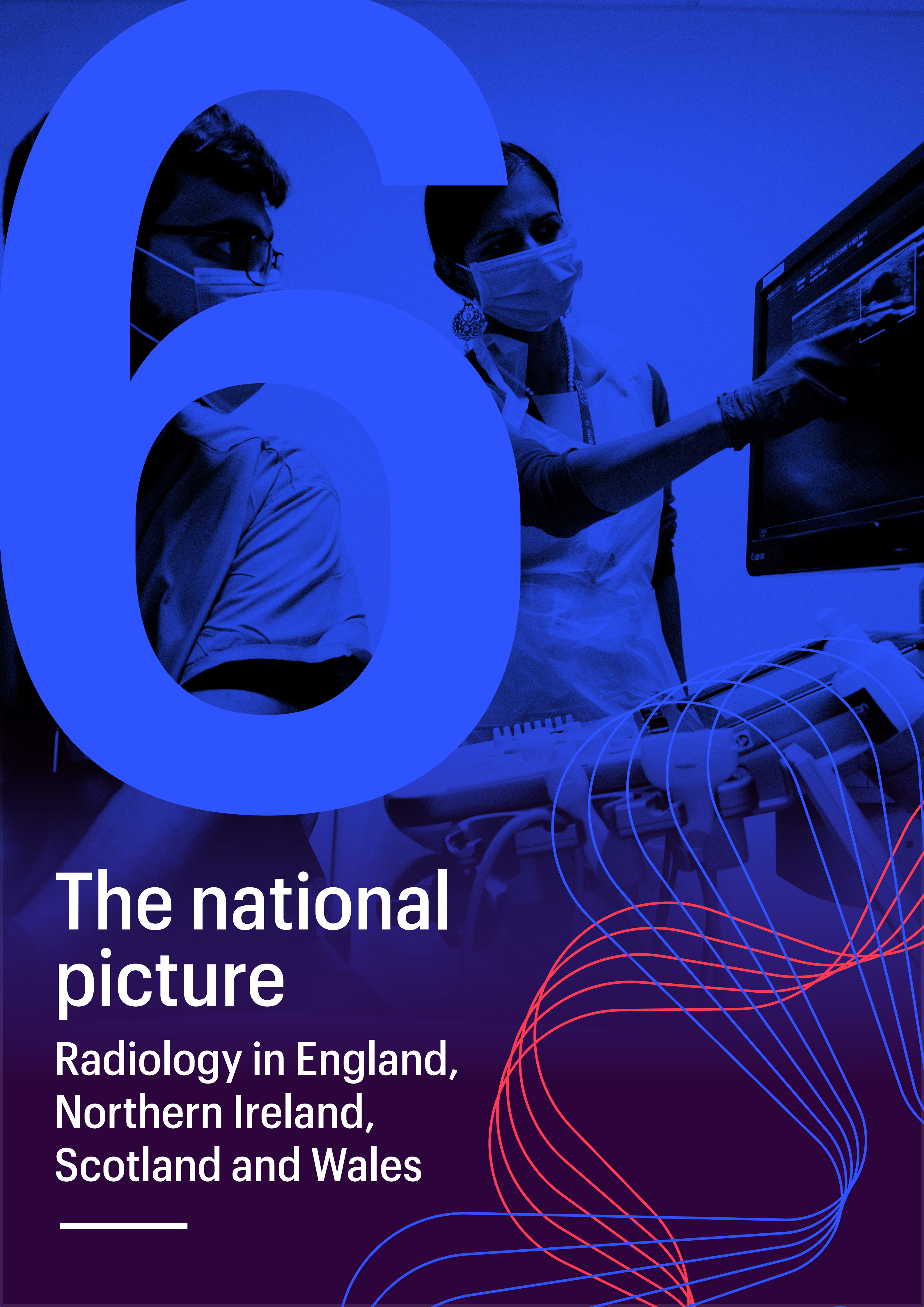
When interpreting this data, it is important to recognise that it applies solely to the 12 months leading up to data collection. Therefore, the data includes those tools that were deployed within the 12-month window as well as those that had been in place for longer. If a tool had only recently been deployed, it stands to reason that its benefits had yet to accrue by the time of data collection. Large IT/AI projects are complex, take time to deliver, and often there is a significant lag whilst staff and systems adapt to the new tool. They also require adequate basic IT systems and support on which to build.

Nonetheless, these data suggest that AI tools in radiology may be most useful in those areas where they are currently least used, such as report drafting. The NHS's attention should turn towards implementing effective AI tools for administrative tasks, which these data suggest have significant unexploited potential.



It provides some help in some aspects of acute stroke imaging… On the other hand it slows down my acute stroke reporting as I have to check the AI and I often conclude that it is incorrect. I then have to explain this in my report.

CLINICAL RADIOLOGIST



6

The national picture

Radiology in England, Northern Ireland, Scotland and Wales

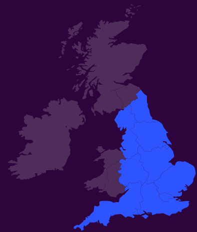
National and regional shortfalls

Scotland	28%
A North of Scotland	50%
B East of Scotland	39%
C West of Scotland	24%
D South East Scotland	16%

England	33%
E North East England	43%
F West Midlands	38%
G Yorkshire and Humber	37%
H East Midlands	36%
I South East England	36%
J South West England	36%
K East of England	33%
L North West England	31%
M London	22%

Northern Ireland Shortfall	28%

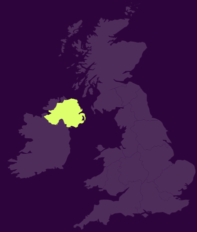
Wales	28%
N North and West Wales	42%
O South Wales	22%



England

Submissions from England comprise over 80% of the data in the census. Its results therefore trend very closely to those of the whole UK.

+ England has the highest clinical radiology consultant shortfall in the UK, at 33%.
+ Recruitment freezes are most common in England (in terms of total number of trusts affected): they are or were in place in 52 trusts (39%).
+ Expenditure to manage excess reporting demand has risen most rapidly in England over the past five years, at an average of 13% per year.
+ English clinical radiology consultants spend the most time preparing for MDTMs of any nation, at an average of 17% of their total activity.



Northern Ireland

Northern Ireland (NI) has seen its substantive clinical radiology consultant workforce shrink over the past five years, with 7 WTE lost since 2020. NI's clinical radiology consultant shortfall is forecast to rise to 42% by 2030 based on current trends. This would be the highest of any UK nation. NI is highly dependent on locums, who comprise 20% of its clinical radiology workforce, the highest of any nation. Locum consultants have increased by an average of 7% per year since 2021.

NI has a relatively small radiology training pipeline, with an average of 7.4 new starts per year. Moreover, clinical radiology specialty training in NI takes the longest of any nation, at an average of 6 years (or 5.6 years median). Indeed, the clinical radiology resident workforce in NI has declined since 2019. However, the consultant:resident ratio in NI is the largest of any nation, suggesting unexploited training capacity may be present. Over half of the average consultant's reporting time in NI is spent reporting with residents present.

NI has a particular challenge with IR. 25% of its non-vascular IR, 35% of its vascular IR, and 50% of its INR consultants are expected to retire by 2030. Moreover, whilst all NI hospitals operate an IR service, just one is available 24/7. Its sole INR service is not available 24/7. The IR workforce in NI has shrunk since 2021, and NI now has the largest IR workforce shortfall in the UK, 34%.

Expenditure on measures to meet excess demand for reporting per head of population is greatest in NI of any UK nation, at £6.64. A decline in spend on insourcing and ad-hoc locums over the past five years has been offset by a steep rise in spend on outsourcing. In total, NI's expenditure would equal 107 CR consultant salaries; this is 1.75 times the size of NI's clinical radiology consultant shortfall, the largest of any nation.

No Clinical Director in NI believes they have sufficient staff to prevent delays to patient care, and over half are highly concerned about the effects of staff shortages on backlogs. The latest data shows that 23% of diagnostic tests are not reported within two days, against a target of 100%.[45]

Whereas all hospitals in NI are using AI in at least one setting, no Clinical Director reports it as having had any impact whatsoever on radiology workloads.

Scotland

Scotland has seen 3% average annual workforce growth for substantive clinical radiology consultants over the past five years. This obscures regional variations, with the most growth occurring in the East of Scotland (9.6% per year) and with the North's consultant workforce shrinking by 3 WTE in the same period. Demand for complex imaging in Scotland rose by 6.5% in 2024-25, versus 3% consultant workforce growth.[46]

Scotland's clinical radiology workforce shortfall rose from 25% in 2024 to 28% in 2025, the largest annual increase of any nation. South East Scotland has the smallest regional workforce shortfall in the UK (16%) and the North has the largest: 50%. The North's huge shortage is partly caused by the fact it has just 7.4 radiologists per 100,000 population, versus 11.9 in the South East. Scotland's clinical radiology resident workforce grew by 3.3% per year over the past five years. Scottish clinical radiology training is the fastest of any UK nation, at an average of 5.5 years (5 years median), and training attrition is the lowest, at 5% (though it rises to 11% in the North). On the other hand, Scotland's consultant:resident ratio is the lowest of any nation, suggesting that unused training capacity in Scotland may be less than elsewhere.

77% of Scottish Health Boards have an IR service, though only half are available 24/7. Though the IR workforce grew by 8% per year, Scotland has the fewest IR consultants per million population of any UK nation. This is the result of IR provision in the North, which has just 3.1 consultants per million population and is experiencing a 62% IR shortfall. No centre in Scotland has the recommended staffing levels to provide 24/7 INR services.

Scotland is the nation with the fewest health boards using AI, at 38%. It is also the nation with the fewest health boards to have introduced at least one measure to boost productivity. Over half of Scottish Clinical Directors are highly concerned that staff shortages are preventing service improvements, the most of any nation.

Wales

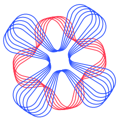
Wales' substantive clinical radiology workforce has grown by 5.4% per year since 2020, the fastest of any UK nation. There is a disparity between South Wales and North and West Wales, however. The former has 12.5 radiologists per 100,000 population, whereas the latter has just 6.5. Moreover, the clinical radiology workforce shortfall in North and West Wales is almost twice that of South Wales: 42% versus 22%.

Locums comprise 13% of the Welsh clinical radiology workforce. The number of locums in Wales has more than doubled since 2021. This helps to explain why Wales' clinical radiology consultant workforce has the most IMGs of any UK nation, 41%. In North and West Wales, 88% of consultant joiners over the past five years were IMGs.

At 5.6% average growth per year, Wales' clinical radiology resident workforce has expanded more rapidly than any other UK nation. South Wales' resident workforce has grown more rapidly than that of North and West Wales. As with consultants, Wales has the greatest share of residents who are IMGs of any nation (25% in 2025). Consultants in Wales spend the most time reporting with residents present than without (31% versus 13%) and spend the greatest share of their total reporting time with residents present of any nation.

The Welsh IR workforce has grown by 10% per year since 2021, though this has been mostly concentrated in South Wales, which gained 10 WTE, versus just 1 WTE in North and West Wales. Wales has just one INR service, which is not available 24/7, and outside of Cardiff and South East Wales, there is a large gap in access to INR services. All Welsh Clinical Directors are concerned that IR procedures have been delayed or cancelled due to workforce shortages.

Over half of Welsh health boards experienced a recruitment freeze in 2025, the largest share of any nation. All Welsh Clinical Directors have seen patients' conditions worsen due to staff shortages, the only nation for which this is the case.



References

1. Richards M. (2020) 'Diagnostics: Recovery and Renewal – Report of the Independent Review of Diagnostic Services for NHS England'. Available at: https://www.england.nhs.uk/publication/diagnostics-recovery-and-renewal-report-of-the-independent-review-of-diagnostic-services-for-nhs-england/ (Accessed April 2026)

2. McCaughey, H. and Powis, S. (2020) NHS England and NHS Improvement Board meetings held in common: "Diagnostics: Recovery and Renewal". Available at: https://www.england.nhs.uk/wp-content/uploads/2020/10/BM2025Pu-item-5-diagnostics-capacity.pdf (Accessed March 2026)

3. Within staff contracted hours and adjusted to meet demand, given the population size. For methodology, please consult this year's data worksheets.

4. NB. These figures use shortfall methodology A only, which is based on imaging activity volumes. NHS England classifies trusts into types based on a range of characteristics including turnover, patient volume and bed capacity.

5. RCR analysis of Diagnostic Imaging Dataset data from NHS England. See DID Table 11: Modality Provider Source Setting. Available at: https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/diagnostic-imaging-dataset-2024-25-data/ (Accessed March 2026)

6. MRI activity in Scotland rose by ~13% between Q3 and Q4 of 2025. See Public Health Scotland (24 February 2026) Diagnostic waiting times: quarter ending 31 December 2025. Available at: https://publichealthscotland.scot/publications/nhs-waiting-times-diagnostics/diagnostic-waiting-times-waits-for-key-diagnostic-tests-24-february-2026/ (Accessed March 2026) Annual growth in CT and MRI activity in Northern Ireland are estimated to be at 10% and 8%, respectively. See Northern Ireland Audit Office (31 March 2025) Health and Social Care Imaging Services. Available at: https://www.niauditoffice.gov.uk/files/niauditoffice/documents/2025-03/NI%20Audit%20Office%20Report%20-%20Health%20and%20Social%20Care%20Imaging%20Services.pdf (Accessed March 2026). In Wales, estimates have placed annual growth in imaging demand at 10-15%. See Auditor General for Wales (November 2018) Radiology Services in Wales. Available at: https://www.audit.wales/publication/radiology-services-wales (Accessed March 2026)

7. Swann, R. et al. (December 2025) 'CT and MRI activity in England: insights from the diagnostic imaging dataset' Clinical Radiology 91(107087). Available at: https://doi.org/10.1016/j.crad.2025.107087 (Accessed March 2026)

8. RCR (2022) Radiology reporting figures for service planning. Available at: https://www.rcr.ac.uk/media/lmojozhq/rcr-publications-radiology-reporting-figures-for-service-planning-2022-november-2022.pdf (Accessed March 2026)

9. Brady, Adrian P. et al. (15 March 2015) 'Current status of radiologist staffing, education and training in the 27 EU member states' Insights Imaging 15;16:59. Available at: https://doi.org/10.1186/s13244-025-01925-7 (Accessed March 2026)

10. Such a split is artificial. Most radiologists who would not describe themselves as interventional will nonetheless perform various IR procedures like biopsies and drainages, and conversely most IRs will spend at least some of their time reporting scans.

11. Department for Health and Social Care (2 June 2025) Nearly £1 billion for NHS frontline after agency spend crackdown. Available at: https://www.gov.uk/government/news/nearly-1-billion-for-nhs-frontline-after-agency-spend-crackdown (Accessed January 2026)

12. There has been a rise in the number of IMGs relinquishing their GMC licence in recent years. General Medical Council (November 2025) Workforce Report 2025. Available at: https://www.gmc-uk.org/about/what-we-do-and-why/data-and-research/the-state-of-medical-education-and-practice-in-the-uk/workforce-report (Accessed January 2026)

13. GMC (November 2023) Workforce Report 2023. Available at: https://www.gmc-uk.org/about/what-we-do-and-why/data-and-research/the-state-of-medical-education-and-practice-in-the-uk/archived-the-state-of-medical-education-and-practice-in-the-uk-reports (Accessed January 2026)

14. This analysis looks only at consultants' clinical work (Direct Clinical Care [DCCs] and Supporting Professional Activities [SPAs]); it does not consider teaching or academic/research programmed activities.

15. This assumes that none of the time of those working LTFT is spent working for a teleradiology company that reports scans for the NHS.

16. Stein, Thea (23 August 2024) Productivity in the NHS: what's getting in the way? Available at: https://www.nuffieldtrust.org.uk/news-item/productivity-in-the-nhs-what-s-getting-in-the-way (Accessed March 2026)

17. The 2020 Radiology GIRFT report found that CR consultant job plans allocate 45% of their time to reporting on average (though this could range from as low as <10% to higher than 80%). See Halliday, Maskell, Beeley and Quick (November 2020) Radiology GIRFT programme national specialty report. Available at: https://gettingitrightfirsttime.co.uk/medical_specialties/radiology/ (Accessed March 2026)

18. This figure would be higher if the time spent performing interventional procedures (not explicitly captured here, but potentially falling within 'other') were included.

19. E.g. some evidence suggests that doctors' time spent on clinical documentation has risen in recent years. Cf. HETT Insights (17 January 2023) Research reveals clinicians spend a third of working hours on clinical documentation. Available at: https://blog.hettshow.co.uk/research-reveals-clinicians-spend-a-third-of-working-hours-on-clinical-documentation (Accessed April 2026)

20. RCR (September 2016) Clinical radiology UK workforce census 2015 report. (Accessed March 2026). Contact RCR for a copy of this document.

21. Individuals can also join at ST3, for which fill rates are likewise high. Most ST3 entrants are IMGs with prior radiology experience gained outside of the UK.

22. NHS England (24 July 2025) Competition ratios for 2025. Available at: https://medical.hee.nhs.uk/medical-training-recruitment/medical-specialty-training/competition-ratios/2025-competition-ratios (Accessed March 2026)

23. Residents' movements between regions are not captured in these data.

24. The GMC reports that one in ten doctors are reducing or ceasing their time spent as a trainer due to workload pressures. See: GMC (August 2025) Workplace experiences 2025. Available at: https://www.gmc-uk.org/about/what-we-do-and-why/data-and-research/the-state-of-medical-education-and-practice-in-the-uk/workplace-report (Accessed March 2026)

25. For the purposes of the census, consultants are classified by the Clinical Director as CR/IR according to their 'primary interest', i.e. what they spend most time doing. For IR, the primary interest options are: vascular, non-vascular, paediatric, and INR. This simplifies what is a complex situation – e.g. most clinical radiologists often perform non-vascular IR procedures, and most IRs do at least some diagnostic reporting work. Individuals can also be labelled with a 'secondary interest' and in this way may combine different types of interventional and diagnostic expertise in their practice.

26. This includes the following modalities: CAT, cone beam CT, ultrasound, fluoroscopy, MRI, nuclear medicine.

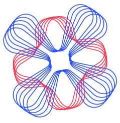
27. White P. and Muir K. (February 2022) 'Evidence base for mechanical thrombectomy in acute ischaemic stroke' in Mechanical thrombectomy for acute ischaemic stroke: an implementation guide for the UK, Ford, James and White (ed.). Available at: https://arc-swp.nihr.ac.uk/publications/mechanical-thrombectomy-for-acute-ischaemic-stroke-an-implementation-guide-for-the-uk/ (Accessed April 2026). At least eleven randomised controlled trials have demonstrated thrombectomy's superiority than medical treatment alone.

28. Ribo M. et al. (8 March 2016) 'Association between time to reperfusion and outcome is primarily driven by the time from imaging to reperfusion', Stroke 47(4):999-1004. Available at: https://doi.org/10.1161/STROKEAHA.115.011721 (Accessed March 2026)

29. Six centres operated 24/7 in 2022, according to the Stroke Association, versus 20 centres currently (census data). Cf. Stroke Association (2022) Saving Brains. Available at: https://www.stroke.org.uk/saving-brains (Accessed April 2026)

30. The number of practitioners with INR as a primary and/or as a secondary interest. 110 WTE consultants have a primary interest. Locums are excluded.

31. Sentinel Stroke National Audit Programme (2025) State of the Nation Report 2025. Available at: https://www.strokeaudit.org/About/About-SSNAP/Annual-reports.aspx (Accessed March 2026). Note that only 10-15% of stroke patients suffer large vessel occlusion and are eligible for treatment with thrombectomy; on the other hand, NHSE's target refers to all stroke patients regardless of clinical presentation.



Back to contents

32. SSNAP data shows that 580 patients were treated with thrombectomy in 2019/20, versus 4,031 in 2024/25.

33. First made in the NHS Long Term Plan. NHS England (2019) NHS Long Term Plan. Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20230418155402/https:/www.longtermplan.nhs.uk/publication/nhs-long-term-plan/ (Accessed March 2026)

34. This excludes interventional neuroradiology and paediatric IR. Check the census data worksheet for methodological details.

35. Zayed H. et al. (30 July 2024) 'Transcatheter arterialization of the deep veins: 1-year outcomes of PROMISE-UK study' BJS 11(7):znae188. Available at: https://doi.org/10.1093/bjs/znae188 (Accessed April 2026)

36. NHS England (24 November 2022) Hospital admissions for amputations by age. Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20240503061754/https:/digital.nhs.uk/supplementary-information/2022/hospital-admissions-for-amputations-by-age (Accessed April 2026)

37. Meffen A et al. (26 March 2025) 'Regional variation in non-traumatic major lower limb amputation in England: observational study of linked primary and secondary care data' BJS Open 9(2):zraf004. Available at: https://doi.org/10.1093/bjsopen/zraf004 (Accessed April 2026)

38. Hanna T P, King W D, Thibodeau S, Jalink M, Paulin G A, Harvey-Jones E et al. (4 November 2020) 'Mortality due to cancer treatment delay: systematic review and meta-analysis' BMJ 2020; 371:m4087. Available at: https://doi.org/10.1136/bmj.m4087 (Accessed March 2026)

39. RCR analysis of NHS England diagnostic waiting times and turnaround times data. See: NHS England, Monthly diagnostic waiting times and activity. Available at: https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/ (Accessed March 2026)

40. The latest NHS staff survey indicates that 30% of medical/dental staff often feel burnt out because of their work, 41% have felt unwell as a result of work-related stress, and 69% feel there are not enough staff in their organisation for them to do their job properly. Fewer than half of medical and dental staff feel they have sufficient materials, supplies and equipment to do their work. See NHS (March 2026) 2025 NHS Staff Survey: Interactive results. Available at: https://www.nhsstaffsurveys.com/results/interactive-results/ (Accessed March 2026)

41. RCR (2022) Clinical radiology job planning guidance for consultant and SAS doctors. Available at: https://www.rcr.ac.uk/our-services/all-our-publications/clinical-radiology-publications/clinical-radiology-job-planning-guidance-for-consultant-and-sas-doctors-2022/ (Accessed March 2026

42. Academy of Medical Royal Colleges (2010) Advice on supporting professional activities in consultant job planning. Available at: https://www.aomrc.org.uk/wp-content/uploads/2024/10/Advice_on_SPA_in_job_planning_0210.pdf (Accessed March 2026

43. As indicated by NHS Staff Survey results, which show that 50% of NHS staff work unpaid overtime. See also Elliott J. (15 August 2025) 'The hidden work in health care: unpaid overtime in the NHS' The Health Foundation. Available at: https://www.health.org.uk/features-and-opinion/blogs/the-hidden-work-in-health-care-unpaid-overtime-in-the-nhs (Accessed February 2026)

44. See AXREM (26 February 2026) Teleradiology: A vital partner in modern NHS care. Available at: https://www.axrem.org.uk/resource/teleradiology-a-vital-partner-in-modern-nhs-care/ (Accessed March 2026)

45. Northern Ireland Department of Health (4 March 2026) Northern Ireland Diagnostic Waiting Times Statistics December 2025. Available at: https://www.health-ni.gov.uk/publications/northern-ireland-waiting-time-statistics-diagnostic-waiting-times-december-2025 (Accessed April 2026)

46. Scottish Health and Social Care Open Data Activity by Health Board. Accessed April 2026. Data refers to CT and MRI activity only, from April 2024 to December 2025.

© The Royal College of Radiologists,
June 2026

The Royal College of Radiologists
63 Lincoln's Inn Fields
London, WC2A 3JW, UK

The Royal College of Radiologists
is a Charity registered with the
Charity Commission No 211540.

+44 020 7405 1282
enquiries@rcr.ac.uk
rcr.ac.uk
@RCRadiologists