

Evidence Brief: Diagnostic and Therapeutic Radiography

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Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

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Key publications – the big picture

[NHS Long Term Workforce Plan](#)

NHS England, 2023 (updated 2024)

Among the allied health professions (AHP), shortfalls will increase the most for paramedics, occupational therapists, diagnostic radiographers, podiatrists, and speech and language therapists. (Page 17) More than a third of AHPs could train through apprenticeships, compared to 6% now, but this would vary by professional group. The Plan sets out the following assessment for proportion of entrants joining the AHP workforce via an apprenticeship route by 2031/32: • at least 80% for operating department practitioners, therapeutic radiographers and podiatrists • 25–50% for paramedics, diagnostic radiographers, occupational therapists, dietetics, prosthetists and orthotists. (Page 45) Alongside this, education and training expansion and reform will be important to address shortages in particular allied health professions, such as diagnostic radiography, therapeutic radiography, occupational therapy, and speech and language therapy. (Page 46) Expanding apprenticeship routes can help address key workforce shortages and particularly benefit those professions that historically lack a consistent route for training and career development, such as non-clinical professionals in corporate services, estates and facilities and general management. Equally, they are beneficial for clinical professions such as learning disability nursing, therapeutic radiography and operating department practitioners, which may not be as visible to school leavers, and may be of more interest to people with greater life experience. (Page 50) Enhanced practitioners are qualified health and social care practitioners who have attained specific applied knowledge and skills in their field. National funding is available to train 150 enhanced practice radiographers a year to support the diagnosis of cancer and other conditions, and to support every general practice to have a musculoskeletal first contact practitioner

(FCP) by 2032/33, two roles that have demonstrated considerable service benefits. (Page 93)

[Revised standards of conduct, performance and ethics](#)

Health & Care Professions Council, 2024

The revised standards of conduct, performance and ethics came into effect on 1 September 2024. Our [guidance on social media](#), which sits alongside the standards, has also been revised.

[Approved programmes](#)

Health & Care Professions Council, 2024

A database of approved education programmes for Allied Health Professionals.

[Recruitment of overseas allied health professionals](#)

NHS Employers, 2024

How overseas allied health professionals (AHPs) can enter the UK for work.

[Innovation and collaboration: supporting Allied Health Professions Return to Practice](#)

NHS England, 2023

It is well recognised that there are significant challenges in AHP workforce supply, retention, and growth across all sectors of health and care. Returning Allied Health Professions are a vital element of the Health Education England (HEE) workforce plan and are essential in re-directing knowledge, skills and experience back into health and care sectors.

[AHP Educator Career Framework](#)

Council of Deans of Health, 2023

The AHP Educator Career Framework is an outcomebased career framework that describes the knowledge, skills and behaviours required to be an effective teacher, learning facilitator, supervisor and role model in AHP education in

practice and formal education settings. First and foremost, it promotes the education pillar of AHP professional practice, recognising that education is everyone's responsibility.

[National profiles for Diagnostic and Therapeutic Radiographers](#)

NHS Staff Council Job Evaluation Group, 2023

National profile of radiographer roles and responsibilities.

[Genomics for allied health professionals: Survey results](#)

NHS England WT&E, Genomics Education Programme, 2023

Overall, your responses showed that a good majority of you feel you don't have a good understanding of genomics.

[Your future allied health professionals](#)

NHS Employers, 2023

This infographic sets out the different routes available for organisations to train allied health professionals.

[The Allied Health Professions \(AHPs\) Strategy for England](#)

NHS England, 2022

This strategy is a catalyst for change. Wherever you work, every member of our AHP community has a part in realising our collective ambitions through its delivery. I therefore encourage you to take a moment to consider how the AHP community can enable the change required to deliver future care today.

[A guide to ESR coding for Advanced Practitioner roles](#)

NHS England WT&E, 2022

To ensure that advanced practitioners' skills are consistently recognised, and better enable those skills to be deployed across healthcare settings we must now ensure that the NHS workforce accurately reflects the breadth of the modern clinical workforce.

[The Allied Health Professions \(AHP\)for England: 2022 to 2027](#)

NHS England, 2022

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[Allied Health Professions' Research and Innovation Strategy for England](#)

NHS England WT&E, 2022

This Strategy comprises a definitive collective national reference statement that encompasses and supports the existing research and innovation strategies of all the Allied Health professional associations.

[Radiographer Enhanced, Advanced and Consultant Practice](#)

NHS England WT&E, no date (estimated post-2022)

Knowledge and development around advanced practice in radiography is evolving with the enhanced level of practice currently being developed alongside the multi-professional consultant level education and training frameworks. Work within this agenda need to be undertaken in collaboration with the College of Radiographers and the HEE Centre of Advancing Practice to ensure robust governance around the accreditation of practice at these levels.

[What can AHPs offer in mental health settings?](#)

Health Education England, 2021

AHPs are the key to transforming health, care, and wellbeing. Working at the top of their competencies and skills, AHPs lead mental health teams to new ways of working. Their expertise in rehabilitation and enablement is vital to move away from over-reliance on hospitals and towards professional interventions across health and social care settings.

[My role in tackling health inequalities: a framework for allied health professionals](#)

The King's Fund, 2021

This framework builds on our commitments in the UK allied health professions public health strategic framework 2019–2024 (Allied Health Professions Federation 2019) and we hope AHPs across the UK will find it useful. It aims to help you to consider your own unique contribution to tackling health inequalities and to help maximise this through a series of lenses and questions.

[What is advanced clinical practice?](#)

NHS England WT&E, no date (estimated post-2020)

Advanced clinical practitioners come from a range of professional backgrounds such as nursing, pharmacy, paramedics and occupational therapy. They are healthcare professionals educated to Master's level and have developed the skills and knowledge to allow them to take on expanded roles and scope of practice caring for patients.

[Standards of education and training](#)

Health & Care Professions Council, 2017

In line with the way our education quality assurance model functions, we have split our standards of education and training along institution and programme levels.

See also: [Review of the standards of education and training](#) (2024)

Society of Radiographers (SoR)

You can search for other SoR policies and guidance here: [Policy and Guidance Document Library | SoR](#)

[The Radiography Manifesto](#)

SoR, 2024

This manifesto, launched at an event held at Parliament on Tuesday 5 March, offers “practical, realistic and positive solutions” to the workforce crisis in the NHS, outlining the “critical interventions” necessary to stabilise and rebuild the service.

[Education and Career Framework for the Radiography Workforce](#)

SoR, 2024

This fourth version of the Education and Career Framework is intended for the guidance and support of the whole imaging and radiotherapy workforce.

[Position Statement: Education and training of diagnostic radiographers working in Magnetic Resonance Imaging](#)

SoR, 2024

Whilst it is the employer's responsibility to ensure that staff are appropriately trained and educated to carry out a job role competently and safely, this statement sets out the position of the SoR as the professional body for the radiographic workforce in relation to the training and education of radiographers working in MRI.

[Principles of Safe Staffing for Radiography Leaders](#)

SoR, 2024

This document aims to provide principles which should be considered when reviewing staffing models for clinical imaging or radiotherapy/oncology services. It outlines the legal considerations that must be considered, members' professional obligations and the principles contained in the [Quality Standard for Imaging](#).

[Principles of Safe Staffing for Radiography Leaders](#)

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[Position Statement: College of Radiographers Update on Advanced and Consultant Practitioner Accreditation](#)

SoR, 2024

Following a period of review of its current accreditation schemes, the College of Radiographers (CoR) is making changes to advanced and consultant practitioner accreditation and will be embarking on the development of a new model to support CoR advanced and consultant level practice.

[The Radiography Support and Assistant Workforce: regulatory compliance, governance arrangements, supervision and delegation](#)

SoR, 2024

The purpose of this document is to provide valuable guidance for managers, supervising staff, assistant practitioners and clinical support workers in all areas of diagnostic and therapeutic radiography. Through practical examples and advice, it aims to assist in implementing effective governance strategies that ensure a safe and high-quality service. This text delves into the topic of supervision and provides illustrations of situations where delegation can be appropriate.

This document should be read alongside the [CoR Education and Career Framework 2022](#), [Developing career pathways for diagnostic imaging support worker roles guidance on roles and responsibilities](#) and the relevant AHP support worker frameworks or information for the nation where the service is located.

[AHP Workforce Reform Programme](#)

SoR, no date (estimated 2023-2024)

The Society of Radiographers (SoR) was commissioned and awarded funds to undertake a programme of work as part of the AHP Workforce Reform Programme, Health Education England (now NHS Workforce Training and Education).

The programme comprised of nine workstreams, each with its own strategic aims, and started on 1 June 2022 and was completed 31 March 2023.

[Supporting students: How to address the radiography workforce crisis](#)

SoR, 2023

The number of radiographers in the NHS is dwindling. According to the latest figures gathered by the Society of Radiographers, 94 per cent of members said there was a vacant post for a diagnostic radiographer in their department, while the UK's vacancy rate for radiographers sits at 12.7 per cent.

Case Studies

[A case study of the development of a videofluoroscopy service: Integration and collaboration between the speech & language therapy and radiographer teams](#) Abstract only*

Radiography 29(3), 2023

Recent literature shows a wide national variation in the running of VFSS services. Pertinently, the evidence suggests that radiologists are becoming progressively less involved in these clinics, with a move towards more practitioner-led services. The changes to the described VFSS service are in line with national trends, and the described clinic is an effective example of a practitioner-led service which fully utilises the role of the advanced practitioner GI radiographer.

[Case Study - Introduction of a clinical progression pathway of Advanced to Consultant Therapeutic Radiography](#)

NHS England WT&E, no date (estimated post-2022)
To help encourage the recruitment and retention of Therapeutic Radiographers the trust is developing a new structured career pathway to progress a new Agenda for Change [AfC] Band 7 enhanced practitioner through advanced practice to the role of Consultant Therapeutic Radiographer-Breast and it is estimated that this will have an estimated 5-year timeframe depending on the candidate.

[Tess Roberts – Advanced Clinical Practitioner](#)

NHS England WT&E, 2022
Tess Roberts is an Advanced Clinical Practitioner (ACP) with a background in Diagnostic Radiography who works in Emergency Medicine (ED) at Aintree Hospital. The patient is at the centre of everything she does and how she approaches her duties.

[Real-life story - Paul Wicklen](#)

NHS Health Careers, no date
Paul left the Royal Air Force (RAF) to seek a new career and was inspired to pursue radiography after seeing his daughter embark on her career in radiography.

[Why I decided to become a Diagnostic Radiographer](#)

NHS England WT&E, no date
My journey as a Diagnostic Radiographer started with a day visit to the University of Cumbria as part of a Future Careers scheme. This event widened my understanding of the chain of professionals that individually play vital roles in a patient's pathway. It stubbed the misconception of medical hierarchy and I came to understand that not a single healthcare role takes precedence over another. In fact, it is the amalgamation of skills brought together that enables the delivery of high-quality patient care.

[Why I decided to become a therapeutic radiographer](#)

NHS England WT&E, no date
Around the time I was finishing school and exploring AHP careers, a relative was having cancer treatment. They told me about their radiotherapy, and I discovered therapeutic radiographers. I was immediately drawn to the role, because of the diverse combination of areas you study.

The Star for workforce redesign

More resources and tools are available in the AHP Quick Reference Guides Upskilling section of the [Star](#). Alternatively, search for 'Allied Health' in the search bar.

Statistics and data

[Radiotherapy Radiographic Workforce UK Census 2023 Report](#)

SoR, 2024
Each year the Society of Radiographers undertakes a UK-wide radiotherapy radiography workforce census to gain intelligence about the radiotherapy radiographic workforce.

To accompany the [report](#), we also publish a [spreadsheet](#) with the principal figures and the [questionnaire](#) used to gather data. See also: [Radiotherapy Radiographic Workforce UK Census 2022 Report](#)

[Registrant data and statistics](#)

Health & Care Professions Council, 2024
These factsheets provide a breakdown for each of the professions we regulate.

[Key statistics on education and training for HCPC professions](#)

Health & Care Professions Council, 2024

We have provided key statistics as a summary of the picture of education and training for the professions we regulate, and how that picture is changing.

[Diversity data: radiographers - March 2023](#)

HCPC, 2023

This factsheet provides key EDI information for radiographers and how the demographics of this group compare to the demographics of HCPC registrants overall.

[Retention rates of first time HCPC registrants, 2013 to 2018](#)

Health & Care Professions Council, 2023

The HCPC embarked upon this analysis to inform our work on preceptorship. We consider that the findings are of wider value. They have particularly important implications for providers and funders of training, and for workforce planners. They are also likely to be of great interest to other stakeholders including professional bodies.

You can search for other statistics and data here:

[Reports and Surveys](#) (Society of Radiographers)

National Data Programme

Workforce, Training and Education staff can look at the [WT&E Data and Analytics Service](#) resources including the National Data Warehouse SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Advanced practice

[Recognition of advanced level practice against multiprofessional capabilities: Experiences of the first radiography applicants](#)

Radiography 30(5), 2024

Several radiographers have now achieved the necessary standards to achieve NHSE recognition. The evaluation exposed that most radiographers did not have the relevant evidence to hand and the ongoing collection of evidence around capabilities and impact is critical to evidencing advanced practice capabilities.

[Assessment of advanced clinical practitioners](#)

Journal of Interprofessional Care 36(6), 2022

The insights from this study enabled lessons to be drawn for those responsible for workforce development who are key to the future development of the ACP role and to ensure high standards of interprofessional care.

[Characterising the outcomes, impacts and implementation challenges of advanced clinical practice roles in the UK: a scoping review](#)

BMJ Open 11(8), 2021

This review suggests a need for educational and role standardisation and a supported career pathway for advanced clinical practitioners (ACPs) in the UK. Future research should: (i) adopt more robust study designs, (ii) investigate the full scope of the ACP role and (iii) include a wider range of professions and sectors.

[An examination of Advanced Clinical Practice: Qualitative insights from therapeutic radiography advanced and consultant practitioners based in England](#)

Technical Innovations & Patient Support in Radiation Oncology 17, 2021

Key findings from the focus groups indicated the need for standardisation in job descriptions, roles and responsibilities and a key understanding of career progression. The professional identity of the AP is acknowledged by independent, autonomous working; however, this can only be facilitated if the correct training is undertaken and the necessary support structures are in place to enable career progression. Challenges associated with role development are 1) lack of career and pathway guidance, 2) lack of clear educational routes, 3) lack of standardised roles.

[Exploring opportunities & pathways for advanced practice radiation therapy roles in the United States](#)

Technical Innovations & Patient Support in Radiation Oncology 17, 2021

Highlights

- Educational and regulatory frameworks do not exist for RTT scope expansion in the U.S.
- Institutions have tools through other AP roles and established international models.
- The APRT role could offer solutions to new pressures on the US [health system](#).
- Institutional support, therapy initiated research and regulatory changes are required.
- Formal collaboration among institutions can revive efforts within the [profession](#).

Digital

[Navigating the ethical landscape of artificial intelligence in radiography: a cross-sectional study of radiographers' perspectives](#)

BMC Medical Ethics 25, 2024

This study revealed a complex ethical landscape in the integration of AI in radiography, characterized by enthusiasm and apprehension among professionals. It underscores the necessity for ethical frameworks, education, and policy development to guide the implementation of AI in radiography. These findings contribute to the ongoing discourse on AI in medical imaging and provide insights that can inform policymakers, educators, and practitioners in navigating the ethical challenges of AI adoption in healthcare.

[Reporting radiographers' interaction with Artificial Intelligence—How do different forms of AI feedback impact trust and decision switching?](#)

PLOS Digital Health, 2024

This study shows that the extent of agreement with both AI binary diagnosis and heatmap is correlated with trust in AI for the participants in this study, where greater agreement with the form of AI feedback is associated with greater trust in AI, in particular in the heatmap form of AI feedback. Forms of explainable AI should be developed with cognisance of the need for precision and accuracy in localisation to promote appropriate trust in clinical end users.

[Artificial intelligence and radiographer preliminary image evaluation: What might the future hold for radiographers providing x-ray interpretation in the acute setting?](#)

Journal of Medical Radiation Sciences 71(4), 2024

With advances in Artificial Intelligence (AI) technology for assistance in clinical decision-making, and indication that this

may increase confidence in diagnostic decision-making with reporting radiographers, the author of this editorial wonders what the impact of this technology might be on clinical decision-making by radiographers in the provision of Preliminary Image Evaluation (PIE).

[Harnessing ChatGPT dialogues to address claustrophobia in MRI - A radiographers' education perspective](#)

Radiography 30(3), 2024

The simulation of clinical scenarios via ChatGPT proves valuable in assessing and testing radiographers' communication skills, especially in managing claustrophobic patients during MRI. This pilot study highlights the potential of ChatGPT in preclinical training, recognizing different training needs at different levels of professional experience.

[The impact of artificial intelligence on radiography as a profession: A narrative review](#) Abstract only*

Journal of Medical Imaging and Radiation Sciences 54(1), 2023
AI can augment routine standard radiographic protocols. It can automatically ensure optimal patient positioning within the gantry as well as automate image processing. As AI technologies continue to emerge in diagnostic imaging, practicing radiologic technologists are urged to achieve threshold computational and technical literacy to operate AI-driven imaging technology.

[Suboptimal Chest Radiography and Artificial Intelligence: The Problem and the Solution](#)

Diagnostics 13(3), 2023

In summary, a substantial proportion of CXRs are suboptimal and require reacquisition. However, the reacquisition of rejected CXRs involves additional radiation exposure, workflow issues, and delays in patient care. While awareness, audit, and continuous education represent vital strategies to mitigate the high frequency of suboptimal CXRs, automation with AI-

integrated cameras and enabled algorithms will likely help the quality of CXRs.

Diversity and inclusion

[Mapping the migrant diagnostic radiographers in the UK: A national survey](#)

Radiography 30(6), 2024

Based on the survey responses, the profile of internationally recruited diagnostic radiographers is relatively young but with pre-migration experience originating all over the globe. They are motivated to work in the UK particular for career progression opportunities.

[International recruitment of radiographers and the development of a workplace integration support package: Project evaluation](#)

Radiography 29(2), 2023

Principal recommendations include ensuring digital accessibility for new recruits as part of the on-boarding process, considering the timing of delivery of any online connected support sessions, the provision of long-term pastoral support; and mandating the training requirement for managers and team leaders.

[Gender diversity in therapeutic radiography: A mixed methods exploration of the gender influences impacting on male students' career choices](#)

Radiography 28(2), 2022

Recruitment language should embrace 'leadership' attributes as well as 'caring' attributes. Supported by male role models, outreach events should emphasise the profession in terms of a sustainable, fulfilling and rewarding career.

["Raising the curtain on the equality theatre": a study of recruitment to first healthcare job post-qualification in the UK National Health Service](#)

Human Resources for Health 20, 2022

The Healthcare Workforce Equity + Diversity Lens we have developed can help to 'raise the curtain on the equality theatre' and inform more inclusive approaches to recruitment such as contextualised recruitment or effective allyship between employers and universities.

Education and curriculum

[What do the revised UK standards of proficiency mean for diagnostic radiography training? A regional radiographer focus group study](#)

Radiography 30(1), 2024

Fifteen diagnostic radiographers across 11 NHS trusts participated in 5 focus groups in November 2022. The findings showed consistency in expectations of student performance in projectional radiography, patient care and communication. Participants felt some standards of proficiency were beyond threshold competency, or current practices were a barrier in supporting learning. Participants felt assessment over a period and range of examinations in the clinical environment gave a fairer picture of student performance.

[Radiography students' perceptions of artificial intelligence in medical imaging](#)

Journal Of Medical Imaging and Radiation Sciences 55(2), 2024

Students presented a multitude of positive and negative perceptions towards the role that AI may play in their future careers. Education pertaining to AI is central to transforming future clinical practice, and it is encouraging that undergraduate students are intrigued and willing to learn about AI in the radiographic context.

[Features of and barriers to effective teamwork at university and on clinical placement: The student radiographer perspective](#)

Radiography 30, 2024

Barriers to teamwork were identified in a main theme, acceptance into the team and two subthemes, theory-practice gap and trying on the professional self. Features of effective teams were identified in two main themes, positive experiences of teamwork and an ideal team. Students highlighted caring for the team, as equally as important as caring for the patient, and another main theme, a caring team, described both the barriers to, and features of, effective teams.

[Student radiographers' knowledge and experience of lateral hip X-ray positioning: A survey](#)

Radiography 30(6), 2024

Overall, student radiographers' experience and knowledge of various lateral hip positions observed in clinical practice was good. The CN position scored high for diagnostic image (66.6%) and dignity for the patient (85.7%), over the often repeated HBL position (76.6%), which scored lower for image quality (64.2%) and dignity (76.6%).

[Impostor phenomenon traits in radiography students: Findings from a UK pilot survey](#)

Radiography 30(1), 2024

Both therapeutic and diagnostic students returned a high CIPS score >70, demonstrating that IP traits were present in the sample of survey responses. Although being an older/mature student was a subtheme in qualitative responses, the quantitative data displayed no statistical difference amongst the CIPS scores by age. A significant difference between males and females surveyed ($p = 0.001$) and year of study ($p = 0.01$) was found with second years students scoring higher (mean CIPS score of 75.56) than first and third-year students (72.41 and 66.17, respectively). The qualitative responses further suggested as clinical placement experiences increased, feelings of IP decreased.

[Artificial intelligence in medical imaging education: Recommendations for undergraduate curriculum development](#)

Radiography 30, 2024

A proposed modular framework is outlined to assist course providers in integrating AI into university programs. An example course design includes modules on data science fundamentals, machine learning, AI ethics and patient safety, governance and regulation, AI tool evaluation, and clinical applications. A proposal to embed these longitudinally in the curriculum combined with hands-on experience and work-integrated learning will help develop the necessary knowledge of AI and its real-world impacts. Authentic assessment examples reinforce learning, such as critically appraising published research and reflecting on current technologies. Maintenance of an up-to-date curriculum will require a collaborative, multidisciplinary approach involving educators, clinicians, and industry professionals.

[Diagnostic radiography students' attitudes towards gender inclusive pregnancy status checks](#)

Radiography 30(3), 2024

The analysis of seven focus groups with nineteen participants yielded four themes: education, standardisation, fear of reaction, and placement involvement. Barriers to conducting IPS checks include a lack of staff encouragement as guidance is enforced at the employers' discretion, and a lack of awareness around transgender, non-binary and intersex (TNBI) inclusivity. Students showed a willingness to conduct IPS checks despite this.

[Obesity bias in diagnostic radiography students: A survey of attitudes, perceptions and technical confidence](#)

Radiography 30(1), 2024

Obesity bias exists in radiography students at levels comparable to those that have been found previously in other healthcare professionals and students. Furthermore, radiography students

lacked confidence in their technical ability to work with obese patients and lower confidence levels were associated with higher levels of obesity bias.

[Diagnostic radiography students' perceptions towards communication with service users who are deaf or hearing impaired](#)

Radiography 29(1), 2023

The study has produced data on the experience of student radiographers interacting with an understudied service user group who are deaf or hearing impaired. Qualitative responses discussed a range of resources to assist clinical practice communication and recommendations for further improvements and training opportunities.

[Artificial intelligence education for radiographers, an evaluation of a UK postgraduate educational intervention using participatory action research: a pilot study](#)

Insights into imaging 14, 2023

Seven students and six faculty members participated in this evaluation. Results can be summarised in the following four themes: a. participants' professional and educational backgrounds influenced their experiences, b. participants found the learning experience meaningful concerning module design, organisation, and pedagogical approaches, c. some module design and delivery aspects were identified as barriers to learning, and d. participants suggested how the ideal AI course could look like based on their experiences.

[An exploration of simulation-based education from other health professionals, to create an informed and effective simulation delivery in a new diagnostic radiography programme](#)

Radiography 29(5), 2023

This questionnaire study demonstrated that there was a need for a standardised guide on how to deliver SBE. There is also a lack

of feedback, training, and reassurance for facilitators. However, facilitators would welcome training or further training and HEE and the University have taken steps to prioritise SBE.

[Progress testing: An educational perspective exploring the rationale for progress testing and its introduction into a Diagnostic Radiography curriculum](#)

Journal of Medical Imaging and Radiation Sciences 54(1), 2023
Progress testing is now well established in pre-registration medical programmes globally. The advantages of progress testing and the use of frequent look rapid remediation appear to be undisputed. Key disadvantages with progress testing were identified as it being an administrative heavy assessment process as well as a perceived bias towards male students undertaking this type of assessment.

[Radiographers' perceptions of first year diagnostic radiography students' performance following implementation of a simulation-based education model](#)

Radiography 29(4), 2023
Embedding simulated-based education requires a holistic approach and close collaboration with placement partners to ensure complimentary learning experiences in the clinical placement setting, and support achievement of the learning outcomes.

[Diagnostic radiography students' perceptions of working in the clinical environment: A focus on emotional challenges](#) Abstract only*

Radiography 28(2), 2022
Emotional challenges exist in the clinical environment. Experiences affecting wellbeing in the clinical setting are diverse among DR students, and students may lack preparedness to deal with them.

[A study to investigate undergraduate diagnostic radiographer preferences and expectations of clinical role development: Quantitative findings](#) Abstract only*

Radiography 28(2), 2022
Other than a larger percentage having A-level as their highest qualification, the participant demographics were similar to the UK radiography workforce. Reporting, CT, MRI and ultrasound are the specialisation preferences of final year undergraduate diagnostic radiography students.

[Joining the workforce during the COVID-19 pandemic: views of Allied Health Profession students](#)

Journal of Interprofessional Care 36(5), 2022
Although the transition from student to practitioner continues to be a stressful period, only a minority of participants reported COVID-19 as an explicit stressor.

[The changing role of pre-admission work experience \(clinical visits\) in Therapeutic Radiography, Diagnostic Radiography and Operating Department Practice: Student perspectives \(Part 1\)](#)

Radiography, 2022
Clinical visits were deemed 'vital' to radiography student career choices, yet ODPs who could not access visits were comfortable with videos. Simulated visits are a safe option amidst the pandemic but must capture the dynamic and patient-centred nature of practice to accurately inform career choices.

[The changing role of pre-admission work experience \(clinical visits\) in therapeutic radiography, diagnostic radiography and operating department practice: Academic perspectives \(part 2\)](#)

Radiography, 2022
The enforced withdrawal of clinical visits may impact upon subsequent attrition associated with 'misinformed career choice'. Alternatives to clinical visits, while less onerous for students, admissions staff and clinical colleagues alike, need to be

carefully evaluated to ensure they offer prospective students a realistic understanding of the profession.

Leadership, coaching and supervision

[Mentorship ecosystems in healthcare: A snapshot from the radiography community of the United Kingdom](#) Abstract only*
Journal of Medical Imaging and Radiation Sciences 55(4), 2024
Mentorship should be viewed as a two-way and dynamic process, either via an individual or group approach. Frameworks for formal and informal mentorship within Radiography have existed for many years; however, the complexity of roles within contemporary practice, coupled with the need to create the relevant 'bandwidth' that focuses on the future, whilst managing the present challenges and opportunities across the workplace is critical.

[What does the literature say about preceptorship and mentorship in radiography: A scoping review of the current research and identified knowledge gaps](#)
Radiography 30(4), 2024
The paucity of research renders current preceptorship and mentorship practices in radiography inadequate for effective transition of different radiography groups into their role. Further research is required to evaluate the models of preceptorship and mentorship, their impact and intended outcomes on radiography practice.

[Inequitable barriers and opportunities for leadership and professional development, identified by early-career to mid-career allied health professionals](#) Abstract only*
BMJ Leader 18(8), 2024
Thematic analysis (TA) generated four themes, including the barriers and opportunities for AHP leadership development and career progression. Further TA identified three overarching

themes: equitable and interprofessional leadership development; an equitable and structured AHP career pathway; and having AHP leaders at a strategical and/or very senior level. These overarching themes were subsumed under the umbrella category: equity of opportunity and voice. The AHPs, who were interviewed, reported inequitable access to both career and leadership development, compared with other professions, such as nurses, doctors and pharmacists.

[Teaching students to mentor: Near-peer mentoring in undergraduate medical radiation science education](#) Abstract only*
Journal of Medical Imaging and Radiation Sciences 54(1), 2023
'Near-peer' mentoring, where the mentor and mentee are similar in social or professional status, has the potential to develop necessary mentoring skills and attitudes in the undergraduate setting. This is in addition to the positive benefits experienced by the mentee, who is beginning to navigate the university environment.

[Reporting radiographer academy training model; an evaluation of the impact for trainees and clinical service](#)
Radiography 28(3), 2022
The academy model has been well received by both cohorts in this study with positive outcomes highlighted and the model being seen as promoting and facilitating integrated imaging network working between departments.

[A personal journey to build leadership skills through collaboration to support radiography research and evidence-based practice](#)
Journal of Medical Imaging and Radiation Sciences 28(4), 2022
Nevertheless, the expansion of evidence-based practice (EBP) in radiography is demanding and it needs to be cultivated not only in clinical practice but also in education and training to promote the necessary attitudes, behaviours and culture.

[Professional diversity in leadership – Inclusion of the smaller professions](#)

The Royal Wolverhampton NHS Trust, 2022

There are 14 Allied Health Professions (AHPs) in England with approximately 170,000 AHPs working within the NHS.

Physiotherapists represent the largest group of AHPs with approximately 61,000 registered with the Health and Care Professions Council, whilst Prosthetics and Orthotics represent the smallest profession with approximately 1000 registrants.

Mental health

[Workplace factors impacting the wellbeing of diagnostic radiographers in clinical practice: A literature review](#)

Journal of Medical Imaging and Radiation Sciences 55(4), 2024

This review highlights the lack of tailored support addressing radiographers' unique experiences. As imaging modalities have different workloads and varying emotional involvement with patients, further research to provide evidence-based interventions to improve radiographers' mental health is advised.

[The risk of burnout in academic radiographers during the COVID-19 pandemic](#)

Radiography 28(4), 2022

These data demonstrate the stark reality of the impact of the COVID-19 pandemic on academic radiographers' workload, wellbeing, and intention to leave their roles.

[“Operating Theatre radiography not for the faint of heart”: How can we support our radiographers? Abstract only*](#)

Journal of Medical Imaging and Radiation Sciences 53(2), 2022

In our institutional context, the view of “operating theatre radiography not for the faint of heart” lies close to many

radiographers. We have shared our experiences and perspectives of supporting intraoperative radiography.

[Wellbeing and coping of UK nurses, midwives and allied health professionals during COVID-19-a cross-sectional study](#)

PLoS One 17(9), 2022

This workforce would benefit from additional support/services to prevent further deterioration in mental health and wellbeing and optimise workforce retention.

Prescribing

[Therapeutic radiographer prescribing practices in the United Kingdom: Questionnaire survey Abstract only*](#)

Radiography 30(3), 2024

The main job categories were consultant radiographers (n = 23, 31.1%) and advanced practice practitioners (n = 18, 24.3%). Many use their prescribing qualifications (87.5%, n = 62), issuing a mean of 15 independent and seven items by supplementary and prescribing per week. Most received assessment and diagnostic skills training before prescribing courses (91.6%, n = 67). Respondents prescribed from a median of six areas, with the highest being in GI (82%), skin (68%), infections (58%), urinary tract disorders (55%) and ear, nose, and oropharynx conditions (54%).

Role progression and development

[MRI reporting radiographers - Has there been a progression or regression in numbers and scope of practice? Abstract only*](#)

Journal of Medical Imaging and Radiation Sciences 55(3), 2024

This survey provides evidence that the number and scope of practice of MRI reporting radiographers within the UK has progressed when compared to a previous survey from 2019/20. The numbers however are still low and there remain significant

geographical variations. The continued predominance of single handed practice is a concern and the reasons behind this and the slow expansion of skill mix reporting in this modality needs further investigation.

[Preliminary clinical evaluation \(PCE\): A transnational scoping review of current radiography practice](#)

Journal of Medical Imaging and Radiation Sciences 56(2), 2024
Gaps exist around defined scope of practice, standardisation, commenting format and compliance with policy. There is very limited evidence around PCE practice in cross-sectional imaging, thus, it is difficult to ascertain the current state and scope of practice internationally. There is a need for countries to develop standard commenting frameworks as well as enforcement of compliance. Additionally, more research is required to ascertain the competence and benefits of PCE practice within cross sectional imaging.

[A 10-month impact evaluation of a journal club among diagnostic radiographers in a single NHS Trust: A service evaluation study](#)

Abstract only*

Journal of Medical Imaging and Radiation Sciences 55(1), 2024
Journal clubs (JC) have emerged as a popular tool within medical and health professions to deliver outcomes such as promotion of evidence-based practice (EBP), improvement of critical appraisal skills, as well as stimulation of research interest among participating professionals.

[Professional identity and role perception of Radiographers and Clinical Technologists in Nuclear Medicine - An exploratory qualitative study](#)

Radiography 30(1), 2024

The study showed that the NMT role is highly specialised, multi-faceted and patient-centred. Their professional status is based on the nature of their role and their university level education and

training. They work together under the umbrella title of NMT with a dual professional identity of "provider of care" and "user of science and technology". However, they may have an individual identity of Radiographer or Clinical Technologist that is determined by their training pathway.

[A qualitative analysis of the role of the diagnostic radiographer in child safeguarding](#)

Journal of Medical Imaging and Radiation Sciences 55(4), 2024
Highlights

- An evolving clinical environment has made the identification of physical and social signs of child safeguarding concerns more challenging for radiographers and, potentially, other healthcare professionals.
- Radiographers are able to contribute towards identification of radiographic signs that represent child safeguarding concerns but those signs vary across imaging modality.
- Greater awareness of the contribution of radiographers in the wider context would see that contribution recognised.
- Alignment between patient, radiographer and examination is necessary for child safeguarding concerns to be apparent. This concept of alignment is extendable to assessment other professions.

[Reporting radiographers within the European Federation of Radiographer Society \(EFRS\) member countries - motivation for becoming a reporting radiographer](#)

Radiography 30(3), 2024

A thorough understanding of the motivation behind pursuing postgraduate studies in reporting radiography is a valuable tool for managers, aiding in fostering a positive work environment and attracting/keeping qualified personnel. The findings of this study can be employed in the development of strategies to support and enhance the practice of reporting radiographers.

[Evidence of expert clinical practice among nuclear medicine non-medical staff: a scoping review](#) Abstract only*

Nuclear Medicine Communications 44(3), 2023

Of the 36 studies that met the inclusion criteria, 80.6% were conference abstracts and 66.7% were single-centres studies. Commonly reported NM ECP activities included image interpretation, cardiac stressing and therapies. Less reported activities include ordering complementary diagnostic procedures, invasive procedures and physical examinations. The United Kingdom presented itself at the forefront of NMP ECP publications.

[Promotion of research culture among radiographers in one UK NHS trust through journal club activities - An autoethnographic study](#) Abstract only*

Radiography 29(4), 2023

The establishment of the journal club received encouraging support from the senior management, university academics, library services and radiography professionals. There are initial signs of research culture improvement among participants of the journal club as observed through engagement in research related activities. However, cultural challenges including lack of time to explore gaps in research evidence, and prioritisation of clinical duties over research related activities, may have affected the achievement of expected outcomes of the club.

[Reporting radiographers in Europe survey: An overview of the role within the European Federation of Radiographer Society \(EFRS\) member countries](#)

Radiography 29(6), 2023

A total of 345 individual responses were received from 15 countries with majorities of respondent from United Kingdom (n = 245, 71%) and Denmark (n = 66, 19%). Mean age was 41.9 (S.D 9.8), similar for females, 42.5 (S.D 9.0) and men 40.9 years (S.D 9.7). Most reporting radiographers worked in public hospitals

(90%). The vast majority of the respondents (n = 270, n = 94%) authored and signed their own clinical reports while a minority (n = 18, 6%) stated that their reports were checked by radiologists.

[Retention of radiographers in the NHS: Influencing factors across the career trajectory](#) Abstract only*

Radiography 29(1), 2022

The different needs between the generations of radiographers should be viewed in terms of the strengths that they may bring to the workplace, rather than the challenges that they may pose. This generational timeline does not stand still and the learning is a continuous process.

[Career intentions, their influences and motivational factors in diagnostic radiography: A survey of undergraduate students](#)

Radiography 28(1), 2022

Radiography academic teams and clinical placement providers must work together to ensure that students have access to high quality placements across specialities. The experiences received during undergraduate training are important in specialty choice.

[Recognition of radiographers in the workplace: Why it matters](#)

Radiography 28(3), 2022

Recognition is one of the basic needs of an individual, and satisfying this need is a crucial issue for organizations. This paper focuses on the importance of recognition for radiographers, notably to protect their psychological health and increase their well-being at work and in their professional career.

[Difficulties associated with access to training and clinical support for Reporting Radiographers – A narrative evidence synthesis](#)

Abstract only*

Radiography 28(4), 2022

Reporting Radiographers often found it difficult find support during training and once qualified, this was usually due to the

availability and workload of supervising staff. Although resistance and obstruction were experienced by many.

[An investigation of implementation within the UK radiography profession](#)

Bongor University, 2022

There is potential for strong implementation in radiography with a need to facilitate and empower radiographer leaders at all levels in the health system. The reported radiography contextual barriers and enablers should inform future research in this regard.

[Assessment of advanced clinical practitioners](#)

Journal of Interprofessional Care 36(6), 2022

The insights from this study enabled lessons to be drawn for those responsible for workforce development who are key to the future development of the ACP role and to ensure high standards of interprofessional care.

[Facilitators for and barriers to radiography research in public healthcare in Nordic countries](#)

Radiography 28(1), 2022

A strategy for establishing a radiography research culture in healthcare is proposed that is novel for the context. Management support for knowledge development and activity leading to inter-professional research projects across knowledge fields, provision of a radiography research lead and acknowledgement of radiography research among colleagues signify the establishment of the culture.

Secondary and tertiary care

[An initial exploration of factors that may impact radiographer performance in reporting mammograms](#)

Radiography 30(6), 2024

RAPs with more than 10 years' experience in image interpretation, compared to those with less than 10 years' experience, demonstrated lower specificity (51.3% vs 84.8%, $p = 0.0264$), ROC (0.83 vs 0.91, $p = 0.0264$) and AFROC (0.75 vs 0.87, $p = 0.0037$) values. Further, higher sensitivity values of 90.7% were seen in those RAPs who had an eye test in the last year compared to those who had not, 82% ($p = 0.021$). Other changes are presented in the paper.

[Assessing the barriers and enablers to the implementation of the diagnostic radiographer musculoskeletal X-ray reporting service within the NHS in England: a systematic literature review](#)

BMC Health Services Research 23, 2023

The literature since 1995 has reframed the debates on implementation of the radiographer reporting role and has been instrumental in shaping clinical practice. There has been clear influence upon both meso (professional body) and macro-level (governmental/health service) policies and guidance, that have shaped change at micro-level NHS Trust organisations. There is evidence of a shift in culturally entrenched legacy perspectives within and between different meso-level professional bodies around skills mix acceptance and role boundaries. This has helped shape capacity building of the reporting workforce. All of which have contributed to conceptual understandings of the skills mix workforce within modern radiology services.

[An investigation into the clinical scope of practice of MRI reporting radiographers within the United Kingdom](#)

Radiography 29(3), 2023

This is believed to be the first study of its kind in the realm of MRI reporting. The study has suggested that MRI reporting radiographers are well placed to contribute to the rollout of community diagnostic centres within the UK.

[Leading radiography research to deliver clinical outcomes](#)

Journal of Medical Imaging and Radiation Sciences 53(4), 2022
Clinical radiographers understand important contemporary issues in practice and identify appropriate research questions but are perhaps ill-equipped with methodological skills to undertake research.

[Performance of Radiologists and Radiographers in Double Reading Mammograms: The UK National Health Service Breast Screening Program](#)

Radiology 306(1), 2022

No difference in performance was observed between radiographers and radiologists reading screening mammograms in a program that used double reading.

Workforce perspectives and experiences

[Assessing radiologists' and radiographers' perceptions on artificial intelligence integration: opportunities and challenges](#)

Abstract only*

The British Journal of Radiology 97(1156), 2024

Both radiologists and radiographers predicted breast imaging would be the subspecialty most impacted by the AI revolution. MRI, mammography, and CT were identified as the primary modalities with significant importance in the field of AI application. The major barrier encountered by radiologists and radiographers when learning about AI was the lack of mentorship, guidance, and support from experts.

[Knowledge, perceptions, and expectations of Artificial intelligence in radiography practice: A global radiography workforce survey](#)

Journal of Medical Imaging and Radiation Sciences 54(1), 2024
Advancement of AI technologies and implementation should be accompanied by proportional training of end-users in radiography and beyond. There are many benefits of AI-enabled

radiography workflows and improvement on efficiencies but equally there will be widespread disruption of traditional roles and patient-centred care, which can be managed by a well-educated and well-informed workforce.

[Radiographer Education and Learning in Artificial Intelligence \(REAL-AI\): A survey of radiographers, radiologists, and students' knowledge of and attitude to education on AI](#)

Radiography 30, 2024

This study reveals significant gaps in training and understanding of AI among medical imaging staff. These findings will guide further research into AI education for medical imaging professionals.

[How confident are UK radiographers at performing paediatric computed tomography trauma scans?](#)

Radiography 29(2), 2023

Radiographers reported to be less confident scanning paediatric CT trauma patients compared to adults, pre- and post-intervention, however this research does not clarify whether this is as a result of an increase in competence. Further research regarding this concept warrants investigation.

[Difficulties associated with Reporting Radiographer working practices – A narrative evidence synthesis](#)

Radiography 28(4), 2022

Better use of the existing workforce is essential to increase productivity, value, and security of Reporting Radiographer services, which are essential to improve patient outcomes and efficiency.

[Assessment of the Willingness of Radiologists and Radiographers to Accept the Integration of Artificial Intelligence Into Radiology Practice](#)

Abstract only*

Academic Radiology 29(1), 2022

There was a significant lack of knowledge and appreciation of the integration of AI into radiology practice. Organisations are stepping toward building AI implementation strategies. The availability of appropriate training courses is the main challenge for both radiographers and radiologists.

[Experiences of diagnostic radiographers through the Covid-19 pandemic](#)

Radiography 28(1), 2022

This study highlights the importance of interprofessional working and that further work is required in the promotion of the profession.

Competency Frameworks

[The standards of proficiency for radiographers](#)

Health & Care Professions Council, 2023

These standards set out safe and effective practice in the professions we regulate. They are the threshold standards we consider necessary to protect members of the public.

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