

Radiographers

Valid from 1 September 2023

Standards of proficiency

At the point of registration, radiographers must be able to:

1 practise safely and effectively within their scope of practice

- 1.1 identify the limits of their practice and when to seek advice or refer to another professional or service
- 1.2 recognise the need to manage their own workload and resources safely and effectively, including managing the emotional burden that comes with working in a pressured environment
- 1.3 keep their skills and knowledge up to date and understand the importance of continuing professional development throughout their career

2 practise within the legal and ethical boundaries of their profession

- 2.1 maintain high standards of personal and professional conduct
- 2.2 promote and protect the service user's interests at all times
- 2.3 understand the importance of safeguarding by actively looking for signs of abuse, demonstrating understanding of relevant safeguarding processes, and engaging in these processes where necessary
- 2.4 understand what is required of them by the Health and Care Professions Council, including but not limited to the Standards of conduct, performance and ethics
- 2.5 respect and uphold the rights, dignity, values, and autonomy of service users, including their role in the assessment, diagnostic and / or therapeutic process
- 2.6 recognise that relationships with service users, carers and others should be based on mutual respect and trust, maintaining high standards of care in all circumstances
- 2.7 understand the importance of and be able to obtain valid consent, which is voluntary and informed, has due regard to capacity, is proportionate to the circumstances and is appropriately documented
- 2.8 understand the importance of capacity in the context of delivering care and treatment
- 2.9 understand the scope of a professional duty of care, and exercise that duty
- 2.10 understand and apply legislation, policies and guidance relevant to their profession and scope of practice
- 2.11 recognise the power imbalance which comes with being a health care professional, and ensure they do not abuse this for personal gain
- 2.12 practise in accordance with current legislation governing the use of ionising and non-ionising radiation for medical and other purposes
- 2.13 understand the legislative, policy, ethical and research frameworks that underpin, inform and influence the practice of radiography

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HIGHLIGHTED STANDARDS ARE GENERIC ACROSS ALL PROFESSIONS

3	look after their health and wellbeing, seeking appropriate support where necessary
3.1	identify anxiety and stress in themselves and recognise the potential impact on their practice
3.2	understand the importance of their own mental and physical health and wellbeing strategies in maintaining fitness to practise
3.3	understand how to take appropriate action if their health may affect their ability to practise safely and effectively, including seeking help and support when necessary
3.4	develop and adopt clear strategies for physical and mental self-care and self-awareness, to maintain a high standard of professional effectiveness and a safe working environment

4	practise as an autonomous professional, exercising their own professional judgement
4.1	recognise that they are personally responsible for and must be able to justify their decisions and actions
4.2	use their skills, knowledge and experience, and the information available to them, to make informed decisions and / or take action where necessary
4.3	make reasoned decisions to initiate, continue, modify or cease treatment or the use of techniques or procedures, and record the decisions and reasoning appropriately
4.4	make and receive appropriate referrals, where necessary
4.5	exercise personal initiative
4.6	demonstrate a logical and systematic approach to problem solving
4.7	use research, reasoning and problem solving skills when determining appropriate actions
4.8	understand the need for active participation in training, supervision and mentoring in supporting high standards of practice, and personal and professional conduct, and the importance of demonstrating this in practice

5	recognise the impact of culture, equality and diversity on practice and practise in a non-discriminatory and inclusive manner
5.1	respond appropriately to the needs of all different groups and individuals in practice, recognising this can be affected by difference of any kind including, but not limited to, protected characteristics ¹ , intersectional experiences and cultural differences

¹ The Equality Act 2010 defines the protected characteristics as age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage and civil partnership and pregnancy and

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- 5.2 understand equality legislation and apply it to their practice
- 5.3 recognise the potential impact of their own values, beliefs and personal biases (which may be unconscious) on practice and take personal action to ensure all service users and carers are treated appropriately with respect and dignity
- 5.4 understand the duty to make reasonable adjustments in practice and be able to make and support reasonable adjustments in theirs and others' practice
- 5.5 recognise the characteristics and consequences of barriers to inclusion, including for socially isolated groups
- 5.6 actively challenge these barriers, supporting the implementation of change wherever possible
- 5.7 recognise that regard to equality, diversity and inclusion needs to be embedded across all areas of the standards and practice
- 5.8 understand the emotions, behaviours and psychosocial needs of people undergoing radiotherapy or diagnostic imaging, as well as that of their families and carers

6 understand the importance of and maintain confidentiality

- 6.1 adhere to the professional duty of confidentiality and understand when disclosure may be required
- 6.2 understand the principles of information and data governance and be aware of the safe and effective use of health, social care and other relevant information
- 6.3 recognise and respond in a timely manner to situations where it is necessary to share information to safeguard service users, carers and / or the wider public
- 6.4 understand the need to ensure confidentiality is maintained in all situations in which service users rely on additional communication support (such as interpreters or translators)
- 6.5 recognise that the concepts of confidentiality and informed consent extend to all mediums, including illustrative clinical records such as photography, video and audio recordings and digital platforms

7 communicate effectively

- 7.1 use effective and appropriate verbal and non-verbal skills to communicate with service users, carers, colleagues and others

maternity. Equivalent equality legislation in Northern Ireland protects age, disability, gender, race, religion or belief and sexual orientation.

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- 7.2 communicate in English to the required standard for their profession (equivalent to level 7 of the International English Language Testing System, with no element below 6.5²)
- 7.3 understand the characteristics and consequences of verbal and non-verbal communication and recognise how these can be affected by difference of any kind including, but not limited to, protected characteristics³, intersectional experiences and cultural differences
- 7.4 work with service users and / or their carers to facilitate the service user's preferred role in decision-making, and provide service users and carers with the information they may need where appropriate
- 7.5 modify their own means of communication to address the individual communication needs and preferences of service users and carers, and remove any barriers to communication where possible
- 7.6 understand the need to support the communication needs of service users and carers, such as through the use of an appropriate interpreter
- 7.7 use information, communication and digital technologies appropriate to their practice
- 7.8 understand the need to provide service users or people acting on their behalf with the information necessary in accessible formats to enable them to make informed decisions

- 7.9 formulate and provide information and support for service users about their treatment and / or imaging process and procedures, with regular reappraisal of their information needs as appropriate

Diagnostic radiographers only

- 7.10 advise other healthcare professionals about the relevance and application of imaging modalities to the service user's needs
- 7.11 provide appropriate information and support for service users throughout their diagnostic imaging examinations

Therapeutic radiographers only

- 7.12 advise other healthcare professionals about the relevance and application of radiotherapy and, where relevant, imaging modalities to the service user's needs
- 7.13 provide appropriate information and support for service users throughout their radiotherapy treatment and care or related diagnostic imaging examinations

² The International English Language Testing System (IELTS) tests competence in the English language. Applicants who have qualified outside of the UK, whose first language is not English and who are not nationals of a country within the European Economic Area (EEA) or Switzerland, must provide evidence that they have reached the necessary standard. Please visit our website for more information.

³ The Equality Act 2010 defines the protected characteristics as age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage and civil partnership and pregnancy and maternity. Equivalent equality legislation in Northern Ireland protects age, disability, gender, race, religion or belief and sexual orientation.

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8 work appropriately with others

8.1 work in partnership with service users, carers, colleagues and others

8.2 recognise the principles and practices of other health and care professionals and systems and how they interact with their profession

8.3 understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team

8.4 contribute effectively to work undertaken as part of a multi-disciplinary team

8.5 identify anxiety and stress in service users, carers and colleagues, adapting their practice and providing support where appropriate

8.6 understand the qualities, behaviours and benefits of leadership

8.7 recognise that leadership is a skill all professionals can demonstrate

8.8 identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion

8.9 demonstrate leadership behaviours appropriate to their practice

8.10 act as a role model for others

8.11 promote and engage in the learning of others

8.12 demonstrate awareness of the need to empower service users to participate in the decision-making processes related to their profession

8.13 demonstrate awareness of the need to encourage, support and mentor staff at all practitioner levels

8.14 demonstrate awareness of roles and responsibilities where work is delegated and demonstrate understanding of how this applies in practice

8.15 understand, interpret and act upon information from other healthcare professionals and service users, in order to maximise health gain whilst minimising risks to the service user (such as from radiation dose)

8.16 understand the need to involve service users in service design, service delivery, education and research

Diagnostic radiographers only

8.17 understand the need to engage service users and carers in planning and evaluating their diagnostic imaging and interventional procedures

Therapeutic radiographers only

8.18 Understand the need to engage service users and carers in radiotherapy pre-treatment planning treatment and follow up and where relevant in planning and evaluating their diagnostic imaging and interventional procedures

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HIGHLIGHTED STANDARDS ARE GENERIC ACROSS ALL PROFESSIONS

9 maintain records appropriately

- 9.1 keep full, clear and accurate records in accordance with applicable legislation, protocols and guidelines
- 9.2 manage records and all other information in accordance with applicable legislation, protocols and guidelines
- 9.3 use digital record keeping tools, where required

10 reflect on and review practice

- 10.1 understand the value of reflective practice and the need to record the outcome of such reflection to support continuous improvement
- 10.2 recognise the value of multi-disciplinary reviews, case conferences and other methods of review

11 assure the quality of their practice

- 11.1 engage in evidence-based practice
- 11.2 gather and use feedback and information, including qualitative and quantitative data, to evaluate the responses of service users to their care
- 11.3 monitor and systematically evaluate the quality of practice, and maintain an effective quality management and quality assurance process working towards continual improvement
- 11.4 participate in quality management, including quality control, quality assurance, clinical governance and the use of appropriate outcome measures
- 11.5 evaluate care plans or intervention plans using recognised and appropriate outcome measures, in conjunction with the service user where possible, and revise the plans as necessary
- 11.6 recognise the value of gathering and using data for quality assurance and improvement programmes
- 11.7 understand the principles and regulatory requirements for quality control and quality assurance as they apply to their profession
- 11.8 understand the quality improvement processes in place relevant to their profession

12 understand and apply the key concepts of the knowledge base relevant to their profession

- 12.1 understand the structure and function of the human body, together with knowledge of physical and mental health, disease, disorder and dysfunction relevant to their profession
- 12.2 demonstrate awareness of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process

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- 12.3 recognise the role(s) of other professions and services in health and social care and understand how they may relate to the role of radiographer
- 12.4 understand the structure and function of health and social care systems and services in the UK
- 12.5 demonstrate awareness of the philosophy and the development of the profession of radiography to inform understanding of current practice
- 12.6 understand the role of the radiographer and other operators in the promotion of health and health education in relation to public health, healthy living and health screening for disease detection
- 12.7 understand the harms and benefits of population and targeted health screening
- 12.8 understand the radiobiological principles on which the practice of radiography is based
- 12.9 understand the concept of risk vs benefit with regards to ionising radiation and non-ionising radiation, acknowledging this will differ depending on modality, and communicate this with service users, taking into consideration service user judgement
- 12.10 understand the philosophy and principles involved in the practice of their profession
- 12.11 understand and apply the principles of ionising radiation production, interaction with matter, beam modification, administration of radionuclides and radiation protection
- 12.12 know the physical and scientific principles on which image formation using ionising and non-ionising radiation is based
- 12.13 understand radiation dosimetry and the principles of dose calculation
- 12.14 understand the theoretical basis underpinning service user assessment prior to and during their procedure
- 12.15 understand the capability, applications and range of equipment used in their profession
- 12.16 distinguish between normal and abnormal appearances on images
- 12.17 know the concepts and principles involved in the practice of their profession and how these inform and direct clinical judgement and decision making
- 12.18 know the pharmacology of drugs used in their profession
- 12.19 understand the legislation, principles and methods for the safe and effective administration of drugs used in their profession
- 12.20 understand the mechanisms for the administration of drugs, including intravenous and oral contrast agents
- 12.21 recognise and respond to adverse or abnormal reactions to medications used in relation to their profession
- 12.22 understand the principles of the safe storage, transportation and disposal of medicinal products used in relation their profession

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HIGHLIGHTED STANDARDS ARE GENERIC ACROSS ALL PROFESSIONS

- 12.23 demonstrate awareness of the current developments and trends in the science and practice of radiography
- 12.24 understand the different communication needs, anatomy and disease processes and their manifestation in children
- 12.25 demonstrate awareness of the principles of Artificial Intelligence (AI) and deep learning technology, and its application to practice

Diagnostic radiographers only

- 12.26 understand the signs and symptoms of disease and trauma that result in referral for diagnostic imaging procedures and their image appearances

understand the structure and function of the human body in health, disease and trauma, as well as common pathologies and mechanisms of disease and trauma, including the:

- musculoskeletal system
- 12.27 – soft tissue organs
- regional and cross-sectional anatomy of the head, neck, limbs, thorax, pelvis and abdomen
- the cardiovascular, respiratory, genitourinary, gastro-intestinal and neuro-endocrine systems

Therapeutic radiographers only

understand the structure and function of the human body in health and disease, including:

- regional and cross-sectional anatomy of the head, neck, limbs, thorax, pelvis and abdomen
- 12.28 – common pathologies and mechanisms of disease with a concentration on cancer, histology, haematology and the lymphatic and immune systems

understand:

- oncology, the pathophysiology of solid and systemic malignancies
- 12.29 – epidemiology
- aetiology
- the management and effect of cancer
- 12.30 know the physiological signs and symptoms, clinical investigations and diagnostic procedures that result in referral for radiotherapy
- 12.31 know the biochemical science of radiation pathophysiology
- 12.32 understand the influence of adjuvant and neoadjuvant treatment including surgery and chemotherapy on radiotherapy dose prescription, timing of radiotherapy and post radiotherapy complications
- 12.33 understand the principles of nuclear medicine and radionuclide procedures in radiotherapy guided planning and radionuclide therapies and theragnostics

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HIGHLIGHTED STANDARDS ARE GENERIC ACROSS ALL PROFESSIONS

13 draw on appropriate knowledge and skills to inform practice

- 13.1 change their practice as needed to take account of new developments, technologies and changing contexts
- 13.2 gather appropriate information
- 13.3 analyse and critically evaluate the information collected
- 13.4 select and use appropriate assessment techniques and equipment
- 13.5 undertake and record a thorough, sensitive and detailed assessment
- 13.6 undertake or arrange investigations as appropriate
- 13.7 conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively
- 13.8 recognise a range of research methodologies relevant to their role
- 13.9 recognise the value of research to the critical evaluation of practice
- 13.10 critically evaluate research and other evidence to inform their own practice
- 13.11 engage service users in research as appropriate
- 13.12 formulate specific and appropriate management plans including the setting of timescales
- 13.13 assess, monitor and care for the service user across the pathway of care relevant to their profession
- 13.14 undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment
- 13.15 use physical, graphical, verbal and electronic methods to collect and analyse information from a range of relevant sources including service user's clinical history, diagnostic images and reports, pathological tests and results, dose recording and treatment verification systems
- 13.16 interrogate and process data and information gathered accurately in order to conduct the procedures most appropriate to the service user's needs
- 13.17 appraise image information for clinical manifestations and technical accuracy, and take further action as required
- 13.18 manage complex and unpredictable situations including the ability to adapt planned procedures
- 13.19 operate radiotherapy or diagnostic imaging equipment safely and accurately relevant to their profession
- 13.20 check that equipment is functioning accurately and within the specifications, and to take appropriate action in the case of faulty functioning and operation
- 13.21 select and explain the rationale for radiographic techniques and immobilisation procedures appropriate to the service user's physical and disease management requirements
- 13.22 position and immobilise service users correctly for safe and accurate procedures

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Diagnostic radiographer only

- 13.23 Authorise and plan appropriate diagnostic imaging examinations
- 13.24 calculate radiation doses and exposures and record and understand the significance of radiation dose
- 13.25 perform a broad range of standard imaging techniques, including examinations requiring contrast agents for relevant modalities across a variety of diagnostic or screening care pathways
- 13.26 assist with a range of more complex diagnostic imaging techniques and interventional procedures providing radiographic support to the service user and other members of the multidisciplinary team
- 13.27 provide appropriate care for the range of service users and their carers before, during and after imaging examinations, minimally invasive interventional procedures and contrast agent examinations
- 13.28 perform a range of imaging examinations where the service user's individual characteristics require examinations to be carried out using non-standard techniques
- 13.29 perform a range of techniques using mobile imaging equipment outside of a dedicated imaging room
- 13.30 Manage and assist with imaging techniques performed on anaesthetised or unconscious patients
- 13.31 adjust ionising radiation exposures and image recording parameters to achieve required image quality at optimal dose for children and adults
- 13.32 perform a range of imaging techniques and interventions on children
- 13.33 use to best effect the processing and related technology supporting imaging systems
- 13.34 manage and assist with fluoroscopic diagnostic and interventional procedures, including those that are complex and involve the use of contrast agents
- 13.35 perform a broad range of computed tomographic (CT) examinations, including standard head CT examinations, and assist with CT examinations of the spine, chest and abdomen in acute trauma, and to contribute effectively to other CT studies
- 13.36 perform standard magnetic resonance imaging procedures
- 13.37 assist with ultrasound imaging procedures
- 13.38 assist with imaging procedures involving the use of radionuclides including PET tracers and particle emitters.
- 13.39 critically analyse clinical images for technical quality and suggest improvement if required
- 13.40 distinguish disease trauma and urgent and unexpected findings as they manifest on diagnostic images and take direct and timely action to assist the referrer

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Therapeutic radiographers only

- 13.41 plan appropriate radiotherapy procedures
- 13.42 Assist in the construction of appropriate immobilisation (including beam modifying) devices, individualised to the specific needs of each service user and the treatment regime prescribed
- 13.43 Identify organs at risk (OAR) on images to provide information for radiotherapy treatment planning
- 13.44 Calculate dose across a range of radiation modalities, including photons, protons and electrons, utilising a treatment planning system and verify this accordingly with a record and verification system
- 13.45 in relation to radiotherapy planning:
 - support service users in understanding radiation exposure, risk and benefit associated with radiation exposure and doses in relation to their imaging examination.
 - perform multimodality imaging techniques and the image registration process, and where appropriate contrast agent examinations, demonstrating appropriate care to service users and their carers.
 - manipulate exposure and image recording parameters to optimal effect
 - perform standard Computed Tomographic (CT) and assist in performing Magnetic Resonance (MR) planning procedures
 - use to best effect the processing and related technology supporting imaging systems
- 13.46 Generate a treatment plan and verify treatment parameters ensuring optimal radiotherapy prescription delivery
- 13.47 Use to best effect the image processing and related technology, including computer-based imaging systems for radiotherapy purposes
- 13.48 Perform the full range of radiotherapy processes and techniques accurately and safely
- 13.49 Manage and assist with fluoroscopic procedures, including those requiring the use of contrast agents
- 13.50 Interpret and evaluate images obtained during radiotherapy planning and treatment, taking appropriate action to optimise accuracy dose delivery to the target volume
- 13.51 Check that the OAR dose is as planned/prescribed during treatment
- 13.52 localise the target volume precisely in relation to external surface and anatomical reference markings using a range of techniques including computed tomography and magnetic resonance imaging for the purpose of radiotherapy planning and delivery
- 13.53 critically evaluate and interpret the radiation prescription in such a way that radiotherapy is delivered accurately and reproducibly

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- 13.54 recognise changing signs, symptoms and progression of disease, and make appropriate decisions not to treat or to review further before proceeding with treatment, including reviewing treatment imaging information

14 establish and maintain a safe practice environment

- 14.1 understand the need to maintain the safety of themselves and others, including service users, carers and colleagues
- 14.2 demonstrate awareness of relevant health and safety legislation and comply with all local operational procedures and policies
- 14.3 work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner and in accordance with health and safety legislation
- 14.4 select appropriate personal protective equipment and use it correctly
- 14.5 establish safe environments for practice, which appropriately manages risk
- 14.6 understand and apply appropriate moving and handling techniques
- 14.7 ensure the physical safety of all individuals in the imaging/ therapeutic work environment, especially with regard to radiation safety and high-strength magnetic fields
- 14.8 use basic life support techniques and be able to deal with clinical emergencies
- 14.9 know the correct principles and applications of disinfectants, methods for sterilisation and decontamination, and for dealing with waste and spillages correctly

15 promote and prevent ill health

- 15.1 understand the role of their profession in health promotion, health education and preventing ill health
- 15.2 understand how social, economic and environmental factors (wider determinants of health) can influence a person's health and well-being
- 15.3 empower and enable individuals (including service users and colleagues) to play a part in managing their own health
- 15.4 engage in occupational health, including being aware of immunisation requirements