

Standards of proficiency

Comparison table: Radiographers

This table compares the standards of proficiency that came into effect on 1 September 2023 (left) and the standards that were in place before that date (right).

| | <u>Current standards (2023)</u> | <u>Previous standards (pre-2023)</u> |
|------------|--|--|
| | At the point of registration, radiographers must be able to: | Registrant radiographers must: |
| 1 | practise safely and effectively within their scope of practice | be able to 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 | know the limits of their practice and when to seek advice or refer to another professional |
| 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 | be able to manage their own workload and resources effectively and be able to practise accordingly |
| 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 | be able to practise within the legal and ethical boundaries of their profession |
| 2.1 | maintain high standards of personal and professional conduct | understand the need to act in the best interests of service users at all times |
| 2.2 | promote and protect the service user's interests at all times | understand what is required of them by the Health and Care Professions Council |

| | | |
|-------------|--|---|
| 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 | understand the need to respect and uphold the rights, dignity, values, and autonomy of service users including their role in the diagnostic and therapeutic process and in maintaining health and wellbeing |
| 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 | recognise that relationships with service users should be based on mutual respect and trust, and be able to maintain high standards of care even in situations of personal incompatibility |
| 2.5 | respect and uphold the rights, dignity, values and autonomy of service users, including their role in the assessment, diagnostic, treatment and/or therapeutic process | know about current legislation applicable to the work of their profession |
| 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 | be able to practise in accordance with current legislation governing the use of ionising and non-ionising radiation for medical and other purposes |
| 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 | understand the importance of and be able to obtain informed consent |
| 2.8 | understand the importance of capacity in the context of delivering care and treatment | be able to exercise a professional duty of care |
| 2.9 | understand the scope of a professional duty of care, and exercise that duty | understand the legislative, policy, ethical and research frameworks that underpin, inform and influence the practice of radiography |
| 2.10 | understand and apply legislation, policies and guidance relevant to their profession and scope of practice | |

| | | |
|-------------|---|---|
| 2.11 | recognise the power imbalance that comes with being a healthcare 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 | |
| | | |
| 3 | look after their health and wellbeing, seeking appropriate support where necessary | be able to maintain fitness to practise |
| 3.1 | identify anxiety and stress in themselves and recognise the potential impact on their practice | understand the need to maintain high standards of personal and professional conduct |
| 3.2 | understand the importance of their own mental and physical health and wellbeing strategies in maintaining fitness to practise | understand the importance of maintaining their own health |
| 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 | understand both the need to keep skills and knowledge up to date and the importance of life-long learning |
| 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 | be able to 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 | be able to assess a professional situation, determine the nature and severity of the problem and call upon the required knowledge and experience to deal with the problem |
| 4.2 | use their skills, knowledge and experience, and the information available to them, to make informed decisions and/or take action where necessary | be able to make reasoned decisions to initiate, continue, modify or cease radiotherapy treatment or diagnostic imaging examinations and record the decisions and reasoning appropriately |
| 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 | be able to initiate resolution of problems and be able to exercise personal initiative |
| 4.4 | make and receive appropriate referrals, where necessary | recognise that they are personally responsible for and must be able to justify their decisions |
| 4.5 | exercise personal initiative | be able to make and receive appropriate referrals |
| 4.6 | demonstrate a logical and systematic approach to problem-solving | understand the importance of participation in training, supervision and mentoring |
| 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 | be aware of the impact of culture, equality, and diversity on practice |

| | | |
|------------|---|--|
| 5.1 | respond appropriately to the needs of all groups and individuals in practice, recognising that this can be affected by difference of any kind including, but not limited to, protected characteristics, intersectional experiences and cultural differences | understand the requirement to adapt practice to meet the needs of different groups and individuals |
| 5.2 | understand equality legislation and apply it to their practice | understand the emotions, behaviours and psychosocial needs of people undergoing radiotherapy or diagnostic imaging, as well as that of their families and carers |
| 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 | be able to provide appropriate information and support for service users throughout their radiotherapy treatment and care or diagnostic imaging examinations |
| 5.4 | understand the duty to make reasonable adjustments in practice and be able to make and support reasonable adjustments in their 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 in the application of all HCPC standards, across all areas of 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 | | |
|------------|--|--|
| 6 | understand the importance of and maintain confidentiality | be able to practise in a non-discriminatory manner |
| 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 that 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 | | |
| 7 | communicate effectively | understand the importance of and be able to maintain confidentiality |
| 7.1 | use effective and appropriate verbal and non-verbal skills to communicate with service users, carers, colleagues and others | be aware of the limits of the concept of confidentiality |

| | | |
|------------|---|--|
| 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 6.5) | understand the principles of information governance and be aware of the safe and effective use of health and social care information |
| 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 characteristics, intersectional experiences and cultural differences | be able to recognise and respond appropriately to situations where it is necessary to share information to safeguard service users or the wider public |
| 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 | |
| | | |
| 8 | work appropriately with others | be able to communicate effectively |
| 8.1 | work in partnership with service users, carers, colleagues and others | be able to demonstrate effective and appropriate verbal and non-verbal skills in communicating information, advice, instruction and professional opinion to service users, 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 | be able to communicate in English to the standard equivalent to level 7 of the International English Language Testing System, with no element below 6.5 |

| | | |
|-------------|--|---|
| 8.3 | understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team | understand how communication skills affect assessment and engagement of service users and how the means of communication should be modified to address and take account of factors such as age, capacity, learning ability and physical ability |
| 8.4 | contribute effectively to work undertaken as part of a multi-disciplinary team | be aware of the characteristics and consequences of verbal and non-verbal communication and how this can be affected by factors such as age, culture, ethnicity, gender, socio-economic status and spiritual or religious beliefs |
| 8.5 | identify anxiety and stress in service users, carers and colleagues, adapting their practice and providing support where appropriate | understand the need to provide service users or people acting on their behalf with the information necessary to enable them to make informed decisions |
| 8.6 | understand the qualities, behaviours and benefits of leadership | understand the need to assist the communication needs of service users such as through the use of an appropriate interpreter, wherever possible |
| 8.7 | recognise that leadership is a skill all professionals can demonstrate | recognise the need to use interpersonal skills to encourage the active participation of service users |
| 8.8 | identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion | be able to advise other healthcare professionals about the relevance and application of radiotherapy or imaging modalities to the service user's needs |
| 8.9 | demonstrate leadership behaviours appropriate to their practice | be able to formulate and provide information to service users about the treatment or imaging process and procedures, with regular reappraisal of their information needs, as appropriate |
| 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 | |

| | | |
|-------------|---|--|
| 9 | maintain records appropriately | be able to work appropriately with others |
| 9.1 | keep full, clear and accurate records in accordance with applicable legislation, protocols and guidelines | be able to work, where appropriate, in partnership with service users, other professionals, support staff and others |
| 9.2 | manage records and all other information in accordance with applicable legislation, protocols and guidelines | understand the need to build and sustain professional relationships as both an independent professional and collaboratively as a member of a team |
| 9.3 | use digital record keeping tools, where required | understand the need to engage service users and carers in planning and evaluating their diagnostic imaging and interventional procedures or their radiotherapy pre-treatment planning, treatment and follow-up |
| | | 9.4 be aware of the need to empower service users to participate in the decision-making processes related to their radiotherapy or diagnostic imaging examination |
| | | 9.5 be able to contribute effectively to work undertaken as part of a multi-disciplinary team |
| | | 9.6 be able to understand, interpret and act upon information from other healthcare professionals, in order to maximise health gain whilst minimising radiation dose to the service user |
| | | |
| 10 | reflect on and review practice | be able to maintain records appropriately |
| 10.1 | understand the value of reflective practice and the need to record the outcome of such reflection to support continuous improvement | be able to keep accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines |
| 10.2 | recognise the value of multi-disciplinary reviews, case conferences and other methods of review | recognise the need to manage records and all other information in accordance with applicable legislation, protocols and guidelines |

| | | |
|-------------|---|--|
| 11 | assure the quality of their practice | be able to reflect on and review practice |
| 11.1 | engage in evidence-based practice | understand the value of reflection on practice and the need to record the outcome of such reflection |
| 11.2 | gather and use feedback and information, including qualitative and quantitative data, to evaluate the response of service users to their care | recognise the value of multidisciplinary team reviews and other methods of review |
| 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 | be able to assure the quality of their practice |
| 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 | be able to engage in evidence-based practice, evaluate practice systematically, and participate in clinical and other audit procedures |
| 12.2 | demonstrate awareness of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process | be able to gather feedback and information that helps to evaluate the response of service users to their care |
| 12.3 | recognise the role(s) of other professions in health and social care and understand how they may relate to the role of radiographer | understand the principles of quality control and quality assurance as they apply to the practice of diagnostic or therapeutic radiography |
| 12.4 | understand the structure and function of health and social care systems and services in the UK | be aware of the role of audit and review in quality management, including quality control, quality assurance and the use of appropriate outcome measures |
| 12.5 | demonstrate awareness of the philosophy and the development of the profession of radiography to inform understanding of current practice | be able to maintain an effective audit trail and work towards continual improvement |
| 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 | be aware of, and be able to participate in, quality assurance programmes, where appropriate |
| 12.7 | understand the harms and benefits of population and targeted health screening | recognise the need to monitor and evaluate the quality of practice and the value of contributing to the generation of data for quality assurance and improvement programmes |

| | | |
|--------------|--|--|
| 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 to their profession | |
| 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 | |
| 12.27 | 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: <ul style="list-style-type: none"> - musculoskeletal system; - soft tissue organs; - regional and cross-sectional anatomy of the head, neck, limbs, thorax, pelvis and abdomen; and - cardiovascular, respiratory, genito-urinary, gastro-intestinal and neuro-endocrine systems | |
| Therapeutic radiographers only | | |
| 12.28 | understand the structure and function of the human body in health and disease, including: <ul style="list-style-type: none"> - regional and cross-sectional anatomy of the head, neck, limbs, thorax, pelvis and abdomen; and - common pathologies and mechanisms of disease, with a concentration on cancer, histology, haematology and the lymphatic and immune systems | |

| | | |
|--------------|---|--|
| 12.29 | understand: <ul style="list-style-type: none"> - oncology, the pathophysiology of solid and systemic malignancies; - epidemiology; - aetiology; and - 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 | |
| | | |
| 13 | draw on appropriate knowledge and skills to inform practice | understand the key concepts of the knowledge base relevant to their profession |
| 13.1 | change their practice as needed to take account of new developments, technologies and changing contexts | understand the philosophy underpinning the development of the profession of radiography |
| 13.2 | gather appropriate information | understand the concept of leadership and its application to practice |
| 13.3 | analyse and critically evaluate the information collected | understand the role of the radiographer in the promotion of health and health education in relation to healthy living and health screening for disease detection |

| | | |
|--------------|---|--|
| 13.4 | select and use appropriate assessment techniques and equipment | recognise the role of other professions and services in health and social care |
| 13.5 | undertake and record a thorough, sensitive and detailed assessment | understand the structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to their profession |
| 13.6 | undertake or arrange investigations as appropriate | understand the radiobiological principles on which the practice of radiography is based |
| 13.7 | conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively | understand the risk-benefit philosophy and principles involved in the practice of diagnostic or therapeutic radiography |
| 13.8 | recognise a range of research methodologies relevant to their role | be aware of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process |
| 13.9 | recognise the value of research to the critical evaluation of practice | understand and be able to apply the physical principles of ionising radiation production, interaction with matter, beam modification and radiation protection for diagnostic imaging or radiotherapy treatment |
| 13.10 | critically evaluate research and other evidence to inform their own practice | know the physical and scientific principles on which image formation using ionising and non-ionising radiation is based |
| 13.11 | engage service users in research as appropriate | understand radiation dosimetry and the principles of dose calculation |
| 13.12 | formulate specific and appropriate management plans including the setting of timescales | understand the theoretical basis underpinning patient assessment prior to and during radiotherapy or diagnostic imaging examinations |
| 13.13 | assess, monitor and care for the service user across the pathway of care relevant to their profession | understand the capability, applications and range of technological equipment used in diagnostic imaging or radiotherapy |

| | | |
|--------------|---|--|
| 13.14 | undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment | be able to distinguish between normal and abnormal appearances evident on images |
| 13.15 | use physical, graphical, verbal and electronic methods to collect and analyse information from a range of relevant sources, including service users' clinical history, diagnostic images and reports, pathological tests and results, dose recording and treatment verification systems | know the concepts and principles involved in the practice of diagnostic imaging or radiotherapy and how these inform and direct clinical judgement and decision making |
| 13.16 | interrogate and process data and information gathered accurately in order to conduct the procedures most appropriate to the service user's needs | know the pharmacology of drugs used in diagnostic imaging or during radiotherapy treatments |
| 13.17 | appraise image information for clinical manifestations and technical accuracy, and take further action as required | understand the methods of administration of drugs |
| 13.18 | manage complex and unpredictable situations including the ability to adapt planned procedures | be able to remove and re-apply dressings and supports |
| 13.19 | operate radiotherapy or diagnostic imaging equipment safely and accurately relevant to their profession | understand the quality assurance processes in place within diagnostic imaging or radiotherapy |
| 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 | be aware of the current developments and trends in the science and practice of radiography |

| | | |
|-------------------------------|---|--|
| 13.21 | select and explain the rationale for radiographic techniques and immobilisation procedures appropriate to the service user's physical and disease management requirements | <p>Diagnostic radiographers only</p> <p>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:</p> <ul style="list-style-type: none"> - musculoskeletal system - soft tissue organs - regional and cross-sectional anatomy of the head, neck, thorax, - pelvis and abdomen - the cardiovascular, respiratory, genito-urinary, gastro-intestinal and neuro-endocrine systems |
| 13.22 | position and immobilise service users correctly for safe and accurate procedures | understand the signs and symptoms of disease and trauma that result in referral for diagnostic imaging procedures |
| Diagnostic radiographers only | | <p>Therapeutic radiographers only</p> <p>understand the structure and function of the human body in health and disease, including:</p> <ul style="list-style-type: none"> - regional and cross-sectional anatomy of the head, neck, thorax, pelvis and abdomen - common pathologies and mechanisms of disease with a concentration on cancer, histology, haematology and the lymphatic and immune systems |
| 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 | <p>understand:</p> <ul style="list-style-type: none"> - oncology, the pathophysiology of solid and systemic malignancies - epidemiology - aetiology - the management and effect of cancer |

| | | |
|--------------|--|---|
| 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 | know the physiological signs and symptoms, clinical investigations and diagnostic procedures that result in referral for radiotherapy |
| 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 | know the biochemical science of radiation pathophysiology |
| 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 | understand the influence of adjuvant treatment including surgery and chemotherapy on radiotherapy dose prescription, timing of radiotherapy and post radiotherapy complications |
| 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 | |
| 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 | <p>in relation to radiotherapy planning:</p> <ul style="list-style-type: none"> - 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; and - 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 of dose delivery to the target volume | |
| 13.51 | check that the OAR dose is as planned or 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 CT and MR 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 | |

| | | |
|--------------|---|--|
| 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 | be able to draw on appropriate knowledge and skills to inform practice |
| 14.1 | understand the need to maintain the safety of themselves and others, including service users, carers and colleagues | be able to conduct appropriate diagnostic or monitoring procedures, treatment, therapy or other actions safely and accurately |
| 14.2 | demonstrate awareness of relevant health and safety legislation and comply with all local operational procedures and policies | be able to formulate specific and appropriate management plans including the setting of timescales |
| 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 | be able to assess, monitor and care for the service user before, during and after diagnostic imaging procedures or radiotherapy treatments |
| 14.4 | select appropriate personal protective equipment and use it correctly | be able to use independent methods to establish and confirm service user identity prior to undertaking diagnostic imaging procedures or delivering radiotherapy treatments |
| 14.5 | establish safe environments for practice, which appropriately manage risk | be able to undertake or arrange investigations as appropriate |
| 14.6 | understand and apply appropriate moving and handling techniques | be able to undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment |

| | | |
|-------------|---|--|
| 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 | be able to gather appropriate information |
| 14.8 | use basic life-support techniques and be able to deal with clinical emergencies | be able to use physical, graphical, verbal and electronic methods to collect and analyse information from a range of sources including service user's clinical history, diagnostic images and reports, pathological tests and results, dose recording and treatment verification systems |
| 14.9 | know the correct principles and applications of disinfectants, methods for sterilisation and decontamination, and for dealing with waste and spillages correctly | be able to interrogate and process data and information gathered accurately in order to conduct the imaging procedure or radiotherapy most appropriate to the service user's needs |
| | | 14.10 be able to appraise image information for clinical manifestations and technical accuracy, and take further action as required |
| | | 14.11 be able to manage complex and unpredictable situations including the ability to adapt planned diagnostic imaging examinations, interventions or treatments |
| | | 14.12 be able to demonstrate a logical and systematic approach to problem solving |
| | | 14.13 be able to change their practice as needed to take account of new developments, technologies and changing contexts |
| | | 14.14 be able to use research, reasoning and problem solving skills to determine appropriate actions |
| | | 14.15 be aware of a range of research methodologies |
| | | 14.16 recognise the value of research to the critical evaluation of practice |

| | | |
|--|--|--|
| | | 14.17 be able to evaluate research and other evidence to inform their own practice |
| | | 14.18 be able to operate radiotherapy or diagnostic imaging equipment safely and accurately |
| | | 14.19 be able to demonstrate spatial awareness, visual precision and manual dexterity in the precise and safe manipulation of treatment units or imaging equipment and related accessory equipment |
| | | 14.20 be able to check that equipment is functioning accurately and within the specifications, and to take appropriate action in the case of faulty functioning and operation |
| | | 14.21 be able to use information and communication technologies appropriate to their practice |
| | | 14.22 be able to apply the risk-benefit philosophy to radiation exposure to protect both individual service users and the population gene pool |
| | | 14.23 be able to select and explain the rationale for examination and treatment techniques and immobilisation procedures appropriate to the service user's physical and disease management requirements |
| | | 14.24 be able to position and immobilise service users correctly for safe and accurate diagnostic imaging examinations or radiotherapy treatments |
| | | Diagnostic radiographers only 14.25 be able to plan appropriate diagnostic imaging examinations |
| | | 14.26 be able to calculate radiation doses and exposures and record and understand the significance of radiation dose |

| | | |
|--|--|---|
| | | 14.27 be able to perform the full range of standard imaging techniques and contrast agent examinations, including those undertaken on service users suffering from acute trauma, and where the service user's medical, physical or mental health needs require examinations to be carried out in non-standard imaging environments |
| | | 14.28 be able to manipulate exposure and image recording parameters to optimal effect |
| | | 14.29 be able to use to best effect the processing and related technology supporting imaging systems |
| | | 14.30 be able to manage and assist with fluoroscopic diagnostic and interventional procedures, including those that are complex and involve the use of contrast agents |
| | | 14.31 be able to perform a standard head computed tomographic (CT) examination, assist with CT examinations of the spine, chest and abdomen in acute trauma, and to contribute effectively to other CT studies |
| | | 14.32 be able to assist with standard magnetic resonance imaging procedures |
| | | 14.33 be able to assist with ultrasound imaging procedures |
| | | 14.34 be able to assist with imaging procedures involving the use of radionuclides |
| | | 14.35 be able to distinguish disease and trauma processes as they manifest on diagnostic images |
| | | Therapeutic radiographers only 14.36 be able to plan appropriate radiotherapy procedures |

| | | |
|--|--|---|
| | | 14.37 be able to generate a treatment plan and verify treatment parameters ensuring optimal radiotherapy prescription delivery |
| | | 14.38 be able to use to best effect the image processing and related technology, including computer-based imaging systems for radiotherapy purposes |
| | | 14.39 be able to perform the full range of radiotherapy processes and techniques accurately and safely |
| | | 14.40 be able to calculate radiation doses and exposures |
| | | 14.41 be able to scrutinise and interpret the radiation prescription in such a way that radiotherapy is delivered accurately and reproducibly |
| | | 14.42 be able to manage and assist with fluoroscopic procedures, including those requiring the use of contrast agents |
| | | 14.43 be able to assist in performing standard computed tomographic (CT) planning procedures |
| | | 14.44 be able to assist in the construction of appropriate immobilisation devices, individualised to the specific needs of each patient and the treatment regime prescribed |
| | | 14.45 be able to undertake complex radiation dose delivery calculations involving a range of radiation types and energies |
| | | 14.46 be able to 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 |

| | | |
|-------------|--|---|
| | | 14.47 be able to manipulate exposure and image recording parameters to optimal effect and interpret and evaluate images obtained during radiotherapy planning and treatment |
| | | 14.48 be able to interpret and evaluate images obtained during radiotherapy planning and treatment |
| | | 14.49 be able to identify organs at risk on images to provide information for radiotherapy treatment planning |
| | | 14.50 be able to recognise changing signs, symptoms and progression of disease, and make appropriate decisions not to treat or to review further before proceeding with treatment |
| | | |
| 15 | promote health and prevent ill health | understand the need to establish and maintain a safe practice environment |
| 15.1 | understand the role of their profession in health promotion, health education and preventing ill health | understand the need to maintain the safety of both service users and those involved in their care |
| 15.2 | understand how social, economic and environmental factors (wider determinants of health) can influence a person's health and wellbeing | be aware of applicable health and safety legislation, and any relevant safety policies and procedures in force at the workplace, such as incident reporting and be able to act in accordance with these |
| 15.3 | empower and enable individuals (including service users and colleagues) to play a part in managing their own health | understand the need to ensure the physical and radiation safety of all individuals in the immediate work environment at all times |
| 15.4 | engage in occupational health, including being aware of immunisation requirements | be able to establish safe environments for practice, which minimise risks to service users, those treating them and others, including the use of hazard control and particularly infection control |

| | | |
|--|--|--|
| | | 15.5 be able to 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 |
| | | 15.6 be able to select appropriate personal protective equipment and use it correctly |
| | | 15.7 be able to use basic life support techniques and be able to deal safely with clinical emergencies |
| | | 15.8 know and be able to apply appropriate moving and handling techniques |
| | | 15.9 know the correct principles and applications of disinfectants, methods for sterilisation and decontamination, and for dealing with waste and spillages correctly |
| | | 15.10 be aware of immunisation requirements and the role of occupational health |