

Draft standards of proficiency for radiographers

This document sets out the proposed changes to the standards of proficiency for radiographers. Proposed deletions are indicated in the text by ~~strike through~~ whilst additions are shown in **bold** in the proposed amendments column. Text in *italics* sets out our reasoning for making certain amends.

Generic standards are indicated by shaded cells. These are standards which apply across all 15 professions. We have moved some standards around to ensure the generic standards are at the top of each section, and so are numbered consistently across all the professions. Feedback relating to these standards should be provided in **Part A: Generic standards** of the survey.

White cells are profession-specific standards. These are unique to each profession, although in many cases these are still consistent across multiple professions. Feedback relating to these standards should be provided in **Part B: Profession-specific standards** of the survey.

Where we have proposed to create a new standard, we have created a new row and assigned this a letter. This is to make it easier to refer back to when providing feedback. Please note the order of some of these standards may be subject to change. Once we have determined what changes we are going to make, we will update the numbering of the standards.

We have endeavoured to make the proposed changes as clear as possible. However, we are aware that this is still a complicated document. We have therefore created a 'clean' version of the standards, available on the consultation page. If you have any questions about the proposed changes, you can email consultation@hcpc-uk.org or call the Policy and Standards team on 020 7840 9815, and a member of the team will be able to talk through this document and the changes. **Please note, due to COVID-19, as the team is working from home, the above phone line is not manned. Instead, you will be prompted to leave a message.**

The current standards of proficiency for radiographers are available to download and view for comparison at:
<https://www.hcpc-uk.org/standards/standards-of-proficiency/radiographers>

No.	Standard	Proposed amendments
Registrant radiographers must:		
1	be able to practise safely and effectively within their scope of practice	
1.1	know the limits of their practice and when to seek advice or refer to another professional	know the limits of their practice and when to seek advice or refer to another professional or service
1.2	be able to manage their own workload and resources effectively and be able to practise accordingly	be able to recognise the need to manage their own workload and resources effectively and be able to practise accordingly safely and effectively
2	be able to practise within the legal and ethical boundaries of their profession	
2.1	understand the need to act in the best interests of service users at all times	understand the need to act in the best interests of service users promote and protect the service user's interests at all times
2.A		understand the importance of safeguarding and the need to engage in appropriate safeguarding processes where necessary
2.2	understand what is required of them by the Health and Care Professions Council	
2.3	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	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	know about current legislation applicable to the work of their profession	understand the importance of and be able to obtain informed consent

		<i>Moved from 2.7</i>
2.6	be able to practise in accordance with current legislation governing the use of ionising and non-ionising radiation for medical and other purposes	be able to exercise a professional duty of care <i>Moved from 2.8</i>
2.7	understand the importance of and be able to obtain informed consent	understand know about current legislation applicable to the work of their profession <i>Moved from 2.5</i>
2.8	be able to exercise a professional duty of care	be able to practise in accordance with current legislation governing the use of ionising and non-ionising radiation for medical and other purposes <i>Moved from 2.6</i>
2.9	understand the legislative, policy, ethical and research frameworks that underpin, inform and influence the practice of radiography	
3	be able to maintain fitness to practise	
3.1	understand the need to maintain high standards of personal and professional conduct	
3.2	understand the importance of maintaining their own health	understand the importance of maintaining their own mental and physical health and be able to take appropriate action if their health may affect their ability to practise safely and effectively
3.A		understand the role that coping strategies can play in maintaining fitness to practise and the importance of seeking help and support when necessary
3.3	understand both the need to keep skills and knowledge up to date and the importance of life-long learning	understand both the need to keep skills and knowledge up to date and the importance of life-long learning continuous professional development
4	be able to practise as an autonomous professional, exercising their own professional judgement	

4.1	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	recognise that they are personally responsible for and must be able to justify their decisions <i>Moved from 4.4 to emphasise importance of this standard</i>
4.2	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	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 be able to use their skills, knowledge and experience, and the information available to them, to make informed decisions or initiate solutions where necessary <i>Moved from 4.1</i>
4.3	be able to initiate resolution of problems and be able to exercise personal initiative	be able to make reasoned decisions to initiate, continue, modify or cease radiography treatment or diagnostic imaging examinations the use of techniques or procedures, and record the decisions and reasoning appropriately <i>Moved from 4.2, wording changed to align with other professions. Radiography specific treatments and examinations would be captured by this wording.</i>
4.4	recognise that they are personally responsible for and must be able to justify their decisions	be able to make and receive appropriate referrals <i>Moved from 4.5</i>
4.5	be able to make and receive appropriate referrals	be able to initiate resolution of problems and be able to exercise personal initiative <i>Moved from 4.3</i>
4.A		be able to demonstrate a logical and systematic approach to problem solving <i>Moved from standard 14</i>
4.B		be able to use research, reasoning and problem solving skills to determine appropriate actions <i>Moved from standard 14</i>
4.6	understand the importance of participation in training, supervision and mentoring	understand the importance of active participation in training, supervision and mentoring <i>Moved from 4.6</i>

5	be aware of the impact of culture, equality and diversity on practice	
5.1	understand the requirement to adapt practice to meet the needs of different groups and individuals	understand the need requirement to adapt practice to respond appropriately to meet the needs of all different groups and individuals
5.A		be aware of the impact of their own values and beliefs on practice
5.B		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, disability , ethnicity, gender, marriage or civil partnership, pregnancy or maternity, race, sex, sexual orientation , socio-economic status and spiritual or religious beliefs <i>Moved from standard 8.6 as more relevant under this standard. Missing protected characteristics included, with the exception of marriage and civil partnership which considered could not impact on verbal and non-verbal communication.</i>
5.2	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	be able to provide appropriate information and support for service users throughout their radiotherapy treatment and care or diagnostic imaging examinations	be able to provide appropriate information and support for service users throughout their radiotherapy treatment and care or diagnostic imaging examinations <i>Moved to standard 8</i>
6	be able to practise in a non-discriminatory manner	be able to practise in a non-discriminatory and inclusive manner
6.A		be aware of the characteristics and consequences of barriers to inclusion
7	understand the importance of and be able to maintain confidentiality	

7.1	be aware of the limits of the concept of confidentiality	
7.2	understand the principles of information governance and be aware of the safe and effective use of health and social care information	understand the principles of information governance and be aware of the safe and effective use of health, and social care and other relevant information
7.3	be able to recognise and respond appropriately to situations where it is necessary to share information to safeguard service users or the wider public	
8	be able to communicate effectively	
8.1	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	be able to use demonstrate effective and appropriate verbal and non-verbal skills to communicate with in communicating information, advice, instruction and professional opinion to service users, colleagues and others
8.2	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 ¹ ¹ <i>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.</i>	
8.3	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	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 <i>Captured by the new standards below</i>

8.4	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	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 <i>Moved to standard 5</i>
8.5	understand the need to provide service users or people acting on their behalf with the information necessary to enable them to make informed decisions	understand the need to provide service users or people acting on their behalf with the information necessary to enable them to make informed decisions <i>Captured by the new standards below</i>
8.6	understand the need to assist the communication needs of service users such as through the use of an appropriate interpreter, wherever possible	understand the need to assist the communication needs of service users such as through the use of an appropriate interpreter, wherever possible <i>Captured by the new standards below</i>
8.7	recognise the need to use interpersonal skills to encourage the active participation of service users	recognise the need to use interpersonal skills to encourage the active participation of service users <i>Captured by the new standards below</i>
8.A		be able to work with service users 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
8.B		be able to modify their means of communication to address the individual communication needs and preferences of service users and carers, and remove any barriers to communication where possible
8.C		be able to use information and communication technologies appropriate to their practice <i>Moved from standard 14</i>
8.8	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	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.D		be able to provide appropriate information and support for service users throughout their radiotherapy treatment and care or diagnostic imaging examinations <i>Moved from standard 5</i>
9	be able to work appropriately with others	
9.1	be able to work, where appropriate, in partnership with service users, other professionals, support staff and others	be able to work, where appropriate, in partnership with service users, their relatives and carers , other professionals, support staff and others
9.2	understand the need to build and sustain professional relationships as both an independent professional and collaboratively as a member of a team	understand the need to build and sustain professional relationships as both an independent professional practitioner and collaboratively as a member of a team
9.A		be able to contribute effectively to work undertaken as part of a multi-disciplinary team <i>Moved from 9.5</i>
9.B		understand the qualities, behaviours and benefits of leadership and be able to apply them in the context of your practice
9.3	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	be able to contribute effectively to work undertaken as part of a multi-disciplinary team <i>Moved up so generic standards are grouped together</i>

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	be able to maintain records appropriately	
10.1	be able to keep accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines	
10.2	recognise the need to manage records and all other information in accordance with applicable legislation, protocols and guidelines	
11	be able to reflect on and review practice	
11.1	understand the value of reflection on practice and the need to record the outcome of such reflection	
11.2	recognise the value of multidisciplinary team reviews and other methods of review	recognise the value of case conferences multidisciplinary team reviews and other methods of review <i>To align with other professions' standards</i>
12	be able to assure the quality of their practice	
12.1	be able to engage in evidence-based practice, evaluate practice systematically, and participate in clinical and other audit procedures	be able to engage in evidence-based practice, evaluate practice systematically, and participate in clinical and other audit procedures
12.2	be able to gather feedback and information that helps to evaluate the response of service users to their care	be able to gather and use feedback and information, including qualitative and quantitative data , that helps to evaluate the response of service users to their care
12.3	understand the principles of quality control and quality assurance as they apply to the practice of diagnostic or therapeutic radiography	understand the principles of quality control and quality assurance as they apply to the practice of diagnostic or therapeutic radiography <i>Moved down so generic standards are grouped together</i>

12.4	be aware of the role of audit and review in quality management, including quality control, quality assurance and the use of appropriate outcome measures	be aware of the role of audit and review in quality management, including quality control, quality assurance and the use of appropriate outcome measures <i>Captured by the new standard below</i>
12.5	be able to maintain an effective audit trail and work towards continual improvement	be able to monitor and systematically evaluate the quality of practice, and maintain an effective audit trail to and work towards continual improvement
12.6	be aware of, and be able to participate in, quality assurance programmes, where appropriate	be aware of, and be able to participate in, quality assurance programmes, where appropriate <i>Captured by the new standard below</i>
12.A		be able to participate in audit procedures and quality management, including quality control, quality assurance and the use of appropriate outcome measures
12.B		be able to evaluate intervention plans using recognised outcome measures and revise the plans as necessary in conjunction with the service user <i>For consistency with the other professions</i>
12.7	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.C		understand the principles of quality control and quality assurance as they apply to the practice of diagnostic or therapeutic radiography
13	understand the key concepts of the knowledge base relevant to their profession	
13.1	understand the philosophy underpinning the development of the profession of radiography	understand the structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to their profession <i>Moved from 13.5</i>

13.A		be aware of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process <i>Moved from 13.8</i>
13.2	understand the concept of leadership and its application to practice	understand the concept of leadership and its application to practice <i>Addressed by a new standard on leadership under standard 9 (9.A)</i>
13.3	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	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 <i>Reordered to align with other professions</i>
13.4	recognise the role of other professions and services in health and social care	understand the structure and function of health and social care services in the UK <i>Reordered to align with other professions</i>
13.5	understand the structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to their profession	understand the philosophy underpinning the development of the profession of radiography to inform understanding of current practice <i>Moved from 13.1</i>
13.6	understand the radiobiological principles on which the practice of radiography is based	understand the role of the radiographer and imager in the promotion of health and health education in relation to public health , healthy living and health screening for disease detection <i>Moved from 13.3</i>
13.7	understand the risk-benefit philosophy and principles involved in the practice of diagnostic or therapeutic radiography	understand the radiobiological principles on which the practice of radiography is based <i>Moved from 13.6</i>
13.8	be aware of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process	understand the risk-benefit philosophy and principles involved in the practice of diagnostic or therapeutic radiography <i>Moved from 13.7</i>

13.9	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	understand and be able to apply the physical principles of ionising radiation production, interaction with matter, beam modification, administration of radionuclides and radiation protection for diagnostic imaging or radiotherapy treatment
13.10	know the physical and scientific principles on which image formation using ionising and non-ionising radiation is based	
13.11	understand radiation dosimetry and the principles of dose calculation	
13.12	understand the theoretical basis underpinning patient assessment prior to and during radiotherapy or diagnostic imaging examinations	understand the theoretical basis underpinning service user patient assessment prior to and during radiotherapy or diagnostic imaging examinations
13.13	understand the capability, applications and range of technological equipment used in diagnostic imaging or radiotherapy	
13.14	be able to distinguish between normal and abnormal appearances evident on images	
13.15	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	know the pharmacology of drugs used in diagnostic imaging or during radiotherapy treatments	know the pharmacology of drugs used in diagnostic imaging or during radiotherapy treatments
13.17	understand the methods of administration of drugs	understand the principles and methods for the safe and effective administration of drugs
13.B		be able to administer drugs including intravenous and oral contrast agents
13.C		be able to recognise and respond to adverse or abnormal reactions to medications
13.D		understand the principles of the safe storage, transportation and disposal of medicinal products

13.18	be able to remove and re-apply dressings and supports appropriately and in a safe, effective and considerate manner	
13.19	understand the quality assurance processes in place within diagnostic imaging or radiotherapy	
13.20	be aware of the current developments and trends in the science and practice of radiography	
13.D		understand the different communication needs, anatomy and diseases processes and manifestation in children
13.E		be aware of the principles of Artificial Intelligence (AI) and deep learning technology, and the methods of assessing the performance of AI algorithms
13.F		understand the signs and symptoms of disease and trauma that result in referral for diagnostic imaging procedures <i>Moved from 13.22</i>
Diagnostic radiographers only		
13.21	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 – 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	understand the signs and symptoms of disease and trauma that result in referral for diagnostic imaging procedures	understand the signs and symptoms of disease and trauma that result in referral for diagnostic imaging procedures <i>Moved to 13.F</i>

Therapeutic radiographers only		
13.23	<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 	
13.24	<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	know the physiological signs and symptoms, clinical investigations and diagnostic procedures that result in referral for radiotherapy	
13.26	know the biochemical science of radiation pathophysiology	
13.27	understand the influence of adjuvant treatment including surgery and chemotherapy on radiotherapy dose prescription, timing of radiotherapy and post radiotherapy complications	understand the influence of adjuvant and neoadjuvant treatment including surgery and chemotherapy on radiotherapy dose prescription, timing of radiotherapy and post radiotherapy complications
14	be able to draw on appropriate knowledge and skills to inform practice	
14.1	be able to conduct appropriate diagnostic or monitoring procedures, treatment, therapy or other actions safely and accurately	be able to change their practice as needed to take account of new developments, technologies and changing contexts <i>Moved from 14.13</i>

14.2	be able to formulate specific and appropriate management plans including the setting of timescales	be able to gather appropriate information <i>Moved from 14.7</i>
14.A		be able to analyse and critically evaluate the information collected <i>Added to align with the other professions' generic standards</i>
14.B		be able to select and use appropriate assessment techniques <i>Added to align with the other professions' generic standards</i>
14.3	be able to assess, monitor and care for the service user before, during and after diagnostic imaging procedures or radiotherapy treatments	be able to undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment <i>Moved from 14.6</i>
14.4	be able to use independent methods to establish and confirm service user identity prior to undertaking diagnostic imaging procedures or delivering radiotherapy treatments	be able to undertake or arrange investigations as appropriate <i>Moved from 14.5</i>
14.5	be able to undertake or arrange investigations as appropriate	be able to conduct appropriate diagnostic or monitoring procedures, treatment, therapy or other actions safely and accurately effectively <i>Moved from 14.1</i>
14.6	be able to undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment	be aware of a range of research methodologies <i>Moved from 14.15</i>
14.7	be able to gather appropriate information	recognise the value of research to the critical evaluation of practice <i>Moved from 14.16</i>
14.8	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	be able to critically evaluate research and other evidence to inform their own practice <i>Moved from 14.17</i>

14.9	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	be able to formulate specific and appropriate management plans including the setting of timescales <i>Moved from 14.2</i>
14.10	be able to appraise image information for clinical manifestations and technical accuracy, and take further action as required	be able to assess, monitor and care for the service user before, during and after diagnostic imaging procedures or radiotherapy treatments across the whole pathway of care <i>Moved from 14.3</i>
14.11	be able to manage complex and unpredictable situations including the ability to adapt planned diagnostic imaging examinations, interventions or treatments	be able to undertake and record a thorough, sensitive and detailed clinical assessment, selecting and using appropriate techniques and equipment <i>Moved from 14.6</i>
14.12	be able to demonstrate a logical and systematic approach to problem solving	be able to demonstrate a logical and systematic approach to problem solving <i>Moved to standard 4</i>
14.13	be able to change their practice as needed to take account of new developments, technologies and changing contexts	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 <i>Moved from 14.8</i>
14.14	be able to use research, reasoning and problem solving skills to determine appropriate actions	be able to use research, reasoning and problem solving skills to determine appropriate actions <i>Moved to standard 4</i>
14.15	be aware of a range of research methodologies	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 <i>Moved from 14.9</i>
14.16	recognise the value of research to the critical evaluation of practice	be able to appraise image information for clinical manifestations and technical accuracy, and take further action as required

		<i>Moved from 14.10</i>
14.17	be able to evaluate research and other evidence to inform their own practice	be able to manage complex and unpredictable situations including the ability to adapt planned diagnostic imaging examinations, interventions or treatments <i>Moved from 14.11</i>
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	be able to use information and communication technologies appropriate to their practice <i>Moved to standard 8</i>
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	be able to perform the full a broad range of standard imaging techniques, minimally invasive interventional procedures and contrast agent examinations, including those undertaken on service users undergoing investigations for suffering from critical illness , acute trauma or other conditions, or who are attending for imaging as part of a screening programme , and where the service user's medical, physical or mental health needs require examinations to be carried out in non-standard imaging environments
14.C		be able to perform a range of imaging technique where the service user's medical, physical or mental health needs require examinations to be carried out in non-standard imaging environments or environments
14.28	be able to manipulate exposure and image recording parameters to optimal effect	be able to manipulate optimise exposure and image recording parameters to optimal effect achieve maximum image quality at minimum dose for children and adults
14.D		be able to perform a range of imaging techniques and interventions on children
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.E		be able to critically analyse clinical images for technical quality and suggest improvement if required
14.35	be able to distinguish disease and trauma processes as they manifest on diagnostic images	be able to distinguish disease and trauma processes as they manifest on diagnostic images and write a coherent preliminary clinical evaluation to assist referrers with diagnosis
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.F		in relation to radiotherapy planning :- <ul style="list-style-type: none"> - be able to support service users in understanding radiation exposure and doses in relation to their imaging examination. - Be able to perform common imaging techniques, and where appropriate contrast agent examinations, demonstrating appropriate care to service users and their carers,

		<ul style="list-style-type: none"> - be able to manipulate exposure and image recording parameters to optimal effect - be able to use to best effect the processing and related technology supporting imaging systems
14.40	be able to calculate radiation doses and exposures	be able to calculate radiation doses and exposures <i>Moved down</i>
14.41	be able to scrutinise and interpret the radiation prescription in such a way that radiotherapy is delivered accurately and reproducibly	be able to scrutinise and interpret the radiation prescription in such a way that radiotherapy is delivered accurately and reproducibly <i>Moved down</i>
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	be able to assist in performing standard computed tomographic (CT) planning procedures Understand the principles of and where appropriate be able to assist in the construction of appropriate suitable immobilisation devices, individualised to the specific needs of each service user patient and the treatment regime prescribed <i>Moved from 14.44, 14.43 moved down</i>
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	be able to interpret and evaluate images obtained during radiotherapy planning and treatment, taking appropriate action to optimise dose delivery to the target volume <i>Moved from 14.48</i>
14.45	be able to undertake complex radiation dose delivery calculations involving a range of radiation types and energies	be able to identify organs at risk on images to provide information for radiotherapy treatment planning <i>Moved from 14.49</i>
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	be able to calculate radiation doses and exposures across a range of radiation modalities utilising a treatment planning system and verify this accordingly with a record and verification system

		<i>Moved from 14.40</i>
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	be able to assist in performing standard computed tomographic (CT) and Magnetic Resonance (MR) planning procedures <i>Moved from 14.43</i>
14.48	be able to interpret and evaluate images obtained during radiotherapy planning and treatment	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 <i>Moved from 14.46</i>
14.49	be able to identify organs at risk on images to provide information for radiotherapy treatment planning	be able to scrutinise and interpret the radiation prescription in such a way that radiotherapy is delivered accurately and reproducibly <i>Moved from 14.41</i>
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	understand the need to establish and maintain a safe practice environment	
15.1	understand the need to maintain the safety of both service users and those involved in their care	
15.2	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	understand the need to ensure the physical and radiation safety of all individuals in the immediate work environment at all times	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 <i>Moved from 15.5</i>

15.4	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	be able to select appropriate personal protective equipment and use it correctly <i>Moved from 15.6</i>
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	be able to establish safe environments for practice, which minimise risks appropriately manages risk to service users, those treating them and others, including the use of hazard control and particularly infection control <i>Moved from 15.4</i>
15.6	be able to select appropriate personal protective equipment and use it correctly	understand know and be able to apply appropriate moving and handling techniques <i>Moved from 15.8</i>
15.7	be able to use basic life support techniques and be able to deal safely with clinical emergencies	understand the need to ensure the physical and image modality specific radiation safety of all individuals in the immediate work environment at all times <i>Moved from 15.3</i>
15.8	know and be able to apply appropriate moving and handling techniques	be able to use basic life support techniques and be able to deal safely with clinical emergencies <i>Moved from 15.7</i>
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	