



# DIAGNOSTIC RADIOGRAPHER (DEGREE)

Reference Number: ST0619

## Details of standard

This apprenticeship standard is currently in development and its contents are subject to change

## Occupation summary

This occupation is found in all healthcare settings including, primary, secondary and tertiary healthcare, independent and private healthcare sectors. The broad purpose of the occupation is to provide excellent patient care by obtaining images of a high diagnostic quality using a range of high cost and complex imaging equipment. This will include imaging using x-rays and cross-sectional imaging methods (Computed Tomography or CT), fluoroscopy and Interventional Radiology and will be able to assist in other imaging modalities such as Ultrasound, Magnetic Resonance Imaging (MRI), Breast Imaging and Nuclear Medicine. Diagnostic Radiographers work with a broad range of patients, e.g. patients who may have mental and/or physical disabilities or be distressed, children and the terminally ill. They work independently to assess, authorise, obtain consent and undertake individual examination requests for radiography procedures. They will critique images and determine appropriate actions. The work is physically and mentally demanding and involves direct patient contact, which can be of a personal nature. In their daily work, an employee in this occupation interacts with patients, their carers, members of the public and other healthcare staff e.g. porters, nurses, other allied health professionals, doctors, external contractors, engineers and medical physicists etc. They will primarily work in diagnostic imaging departments in hospitals (inpatients and outpatients), but also provide mobile imaging on Wards, including the Intensive Care Unit, Neonatal Unit, Emergency Department and Operating Theatres. Diagnostic Radiographers may also provide imaging in stand-alone satellite units. An employee in this occupation will be responsible for the safe use of imaging equipment and the safe conduct of examinations, including the radiation protection of patients, themselves, staff and visitors. As registered autonomous practitioners they are accountable both professionally and legally for their own actions and for those operating under their supervision as they deliver safe and compassionate care. Work may be undertaken independently or as part of a team. They may refer to another healthcare professional for advice; however, this may not always be available at night in smaller organisations or in satellite departments. They are expected to contribute to a 24-hour, 7-day week imaging service with varying shift patterns and on call service and, on occasion, may be the sole provider of imaging services for the organisation.

## Typical job titles

Typical job titles include Diagnostic Radiographer.

## Entry requirements

Entry requirements will be stipulated by individual HEIs

## Occupation duties

Duty	Criteria for measuring performance	KSBs
<b>Duty 1</b> Work as an autonomous practitioner to make decisions in diagnostic radiography.	Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics; and Society and College of Radiographers guidance; national legislation and local policies and procedures.	K1 K2 K3 K4 K7 K8 K13  S1 S2 S4 S5 S8  B1 B2 B4 B6 B7
<b>Duty 2</b> Clinically assess patient condition to decide the most appropriate imaging protocols required to achieve diagnostic imaging.	Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics; and Society and College of Radiographers guidance; national legislation and local policies and procedures.	K1 K3 K4 K5  S1 S4 S5 S6  B3 B4
<b>Duty 3</b> Assess, authorise or reject, if appropriate, the clinical information provided on the request form against justification criteria and clinically prioritise accordingly.	Adhere to HCPC Standards of Proficiency, performance conduct and ethics, Society and College of Radiographers guidance; national legislation including Ionising Radiation (Medical Exposure) Regulations and Ionising Radiation Regulations; and local policies and procedures.	K3 K5 K7 K8  S4 S5  B1 B4
<b>Duty 4</b> Confirm patient identity and obtain patient consent prior to examination and explain how to obtain their results.	Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics; Society and College of Radiographers guidance; national legislation including Ionising Radiation (Medical Exposure) Regulations; and Ionising Radiation Regulations and local policies and procedures.	K1 K7 K8 K18  S4  B4
<b>Duty 5</b> Move and manipulate imaging equipment safely, position patients and adapt technique to ensure optimal diagnostic images can be achieved. The diagnostic procedures may include general x-ray images including trauma and orthopaedics, dental, ward patients, ambulatory & non- ambulatory care, operating theatre, mobile x-ray (wards, Intensive Care Unit,	Adhere to HCPC Standards of Proficiency, performance, conduct and ethics; Society and College of Radiographers guidance; national legislation including Ionising Radiation (Medical Exposure) Regulations and Ionising Radiation Regulations; local policies and procedures.	K6 K8 K10 K11 K12 K13  S7 S8 S11 S15  B2 B5 B7

Emergency department), fluoroscopy and Computed Tomography (CT).

<p><b>Duty 6</b> Evaluate the quality of images according to the clinical criteria. Recognise normal, normal variants and abnormal image appearances in order to provide a preliminary clinical evaluation when appropriate and to escalate urgent or unexpected findings in a timely manner.</p>	<p>Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics; Society and College of Radiographers guidance; national legislation including Ionising Radiation (Medical Exposure) Regulations; local policies and procedures.</p>	<p>K3 K10 K13 K14 S8 S9 B2 B5</p>
<p><b>Duty 7</b> Deliver high quality patient-centred, compassionate care and maintain patient confidentiality, privacy and dignity at all times.</p>	<p>Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics; Society and College of Radiographers guidance; local policies and procedures.</p>	<p>K6 K17 K18 S4 S10 S11 S13 B1 B4 B5</p>
<p><b>Duty 8</b> Accurately record data in compliance with legislation, information governance and local policies and procedures.</p>	<p>Comply with national legislation, including data protection and Ionising Radiation (Medical Exposure) Regulations and local policies and procedures.</p> <p>Adhere to Health and Care Professions Council Standards of Proficiency, Performance, Conduct and Ethics and Society and College of Radiographers Code of Professional Conduct.</p>	<p>K8 K18 K19 K26 S12 S13 B4</p>
<p><b>Duty 9</b> Work effectively as part of a multidisciplinary team when delivering holistic patient care.</p>	<p>Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics;, and Society and College of Radiographers guidance; national legislation and local policies and procedures.</p>	<p>K1 K15 S3 S4 S5 S6 B1 B2 B4</p>
<p><b>Duty 10</b> Maintain appropriate radiation protection for self, patients, staff and public. Maintain a radiation- controlled area when undertaking diagnostic imaging procedures in different care settings e.g. in an imaging department, or on a ward/operating theatre.</p>	<p>Adhere to Ionising Radiation (Medical Exposure) Regulations, Ionising Radiation Regulations and local policies and procedures.</p> <p>Adhere to Health and Care Professions Council Code of Conduct.</p>	<p>K1 K8 K13 S4 S14 S15 B2 B4 B5</p>
<p><b>Duty 11</b> Comply with clinical governance including all statutory</p>	<p>Comply with national legislation and local policy and procedures.</p>	<p>K1 K2 K8</p>

and local policies, procedures and protocols, e.g. safeguarding, duty of candour, Health and Safety and infection prevention and control etc.		S16 B2 B4 B5 B7
<b>Duty 12</b> Supervise Assistant Practitioners, Healthcare Support Workers, students and other learner groups within imaging and non-imaging services, supporting their development and training and delegate work as appropriate.	Adhere to Health and Care Professions Council Standards of Proficiency, performance, conduct and ethics;, and Society and College of Radiographers guidance; national legislation and local policies and procedures.	K16 K20 K21 S4 S17 B2 B3 B4 B5 B6 B7
<b>Duty 13</b> Participate in, undertake, analyse and take action on results for diagnostic Imaging Quality Control tests, including reject analysis and audit as part of the Quality Assurance Programme.	Comply with Ionising Radiation (Medical Exposure) Regulations, Ionising Radiation Regulations and local quality assurance policies and procedures.	K8 K22 K23 K24 K25 S2 S12 S13 S18 B4
<b>Duty 14</b> Use Continual Professional Development (CPD) and reflection to maintain professional Health and Care Professions Council registration. Keep up to date and engage with current research and evidence-based practice.	Comply with Health and Care Professions Council Standards of Proficiency, Society and College of Radiographers guidance and local policies.	K2 K21 K24 S2 S13 S16 S19 B2 B4 B5 B6 B7
<b>Duty 15</b> Identify and negotiate with the Employer an area of practice to inform service development, e.g. undertake IV cannulation, Computed Tomography (CT) examinations, Magnetic Resonance Imaging (MRI) examinations, imaging skills in paediatrics / dental/ orthopaedics or developing leadership/management skills.	Comply with Health and Care Professions Council Standards of Proficiency and Society and College of Radiographers guidance.	K1 K3 K9 K12 K18 K23 K24 K25 S1 S3 S10 S16 B1 B2 B6
<b>Duty 16</b> Undertake contrast studies, with appropriate precautions in relation to medicines management before, during and after the examination; dealing with any adverse reactions/aftercare of the patient.	Comply with medicines management policies and procedures.	K4 K5 K7 K9 K12 K19 S1 S4 S6 S10 S13 B1 B2 B3 B4
<b>Duty 17</b> Assist in procedures in Ultrasound, Magnetic Resonance Imaging (MRI), Nuclear Medicine and Interventional Radiology.	Comply with Health and Care Professions Council Standards of Proficiency and Society and College of Radiographers guidance.	K3 K4 K6 K8 K11 K12 K27 S4 S6 S10 S12 S14 S16

## KSBs

### Knowledge

**K1:** Knows and understands local and national Imaging policies and procedures including patient pathways and the impact of imaging on patient care and treatment.

**K2:** Knowledge of Health and Care Professions Council Standards of Proficiency and Society and College of Radiographers Code of Conduct and professional scope of practice.

**K3:** Knowledge and understanding of relevant anatomy, physiology and pathology, normal, normal variants and abnormal image appearances.

**K4:** Understand key patient signs and symptoms and observation records in order to recognise and manage a deteriorating patient.

**K5:** Knowledge and understanding of local referral justification criteria and relative clinical urgency of clinical conditions, including signs, symptoms and potential consequences.

**K6:** Knowledge and understanding of different patient needs and rights including dignity, diversity and privacy, communication styles and clinical conditions e.g. dementia or learning disabilities.

**K7:** Knowledge and understanding of the principles of radiobiological science, the associated risks and benefits and comparative radiation doses for different imaging protocols including different types of imaging in relation to appropriate authorisation of the justification of imaging requests.

**K8:** Knowledge and understanding of Ionising Radiation (Medical Exposures) Regulations and Ionising Radiation Regulations. Knowledge of Local Rules, local and national Diagnostic Reference Levels (DRLs) including appropriate associated Personal Protective Equipment (PPE), and pregnancy status.

**K9:** Knowledge of the procedure for obtaining consent, the underpinning knowledge of consent, and the procedures for when consent cannot be obtained.

**K10:** Knowledge of human anatomy and physiology to image the area of interest, using external bony landmarks and knowledge of the effects of adapting positioning on the resulting image.

**K11:** Knowledge of safe patient moving and handling techniques.

**K12:** Knowledge of the methods of drug administration, the pharmacological basis for interaction of contrast media, including contraindications and how to respond to an emergency situation.

**K13:** Knowledge of the physiological effects of exposure to Ionising Radiation and the correct use and manipulation of radiation exposures and associated radiation science in order to produce high quality images, whilst maintaining the lowest practicable radiation dose.

**K14:** Knowledge of the process for escalation of unexpected findings identified on images to ensure optimum patient care.

**K15:** Knowledge of conflict resolution strategies.

**K16:** Knowledge of different methods of communication including verbal and non-verbal communication. Knowledge and understanding of the effect of own body language and attitude on others. Knowledge of active listening skills.

- K17:** Knowledge and understanding of the legal, ethical and professional principles associated with equality, diversity and safeguarding.
- K18:** Knowledge of patient confidentiality and awareness of responsibility to maintain it in line with ethical and legislative frameworks.
- K19:** Understands the General Data Protection Regulations and consequences of good and poor data quality on the patient experience/pathway including the need for accurate record keeping and report writing.
- K20:** Knowledge of different roles and scopes of practice for those under own supervision.
- K21:** Knowledge of different learning styles, assessment, group dynamics, learning theory, recognition of good and bad practice, delivering constructive feedback.
- K22:** Understanding of radiographic equipment in the context of how images are produced for both ionising and non-ionising radiation imaging methods and how images are appropriately shared and/or stored.
- K23:** Knowledge of the theory of the audit cycle, quality control tools / equipment, analysis of results and how to take appropriate action and the principles of service improvement.
- K24:** Knowledge of current trends in relevant legislation, the profession and wider healthcare, and an understanding of putting evidence-based practice into daily work.
- K25:** Knowledge of different research methodologies and how to critically analyse research.
- K26:** Knowledge of cyber security relevant to the Imaging department.
- K27:** Knowledge of the application of different Imaging procedures and the associated risks/benefits and precautions/safety requirements.

## Skills

- S1** Undertake basic patient observations, recognise a deteriorating patient, and manage immediately and appropriately.
- S2** Manage time and resources and prioritise workload according to clinical needs.
- S3** Build and sustain professional relationships and work independently, as part of the imaging team, as part of a multi-disciplinary team, and providing supervision as appropriate.
- S4** Communicate appropriately with each individual patient, their families and carers, involving them in decision making, where appropriate, and the multi-disciplinary team adapting a style for each individual to provide holistic care, taking account of circumstances and environments.
- S5** Collate and record information from different sources and critically evaluate to make a logical, informed decision using this information, and communicate decisions appropriately and in a timely way.
- S6** Critically assess a clinical or professional situation and respond accordingly eg raising concerns as appropriate
- S7** Use good radiographic techniques and modify as clinically appropriate. Have the technical ability to manipulate a range of equipment, whilst maintaining patient comfort and adequately communicate with patients and colleagues to ensure the safe movement of patients into imaging position. Use appropriate touch techniques to locate external bony landmarks.

- S8** Recognise normal and abnormal image appearances and when to act upon them. Use abnormality alert systems such as a preliminary clinical evaluation.
- S9** Assess image technical standard according to a recognised methodology.
- S10** Provide patient care in accordance with patient condition e.g. patient personal hygiene, basic life support, first aid, basic patient care needs and deliver, where appropriate, brief clinical preventative advice interventions.
- S11** Respect and maintain patient privacy and dignity at all times in all environments, including emergency situations.
- S12** Maintain accurate and confidential information using, for example, Radiology Information Systems (RIS), Picture Archiving Communication System (PACS) etc.
- S13** Maintain data protection and patient confidentiality in clinical practice and complete relevant concise, factual reports and documentation.
- S14** Use appropriate Personal protective Equipment (PPE) for staff, patients and members of the public.
- S15** Use radiation protection techniques safely and appropriately, including distraction/immobilisation techniques to effectively minimise overall radiation dose. Appropriate use of radiation dose software. Manipulate exposure factors according to patient condition to create a diagnostic image with the lowest practicable radiation dose.
- S16** Adopt Imaging and organisational policies, procedures, protocols, guidance and legislation into the clinical environment under different circumstances and situations.
- S17** Supervise, facilitate learning, motivate and share reasoned clinical judgement with others.
- S18** Use Quality Assurance tools/equipment, to analyse and interpret results and act upon them in a safe manner.
- S19** Read and critically analyse research articles, utilise basic research skills and apply research findings to practice.

## Behaviour

- B1:** Demonstrate a calm demeanour with empathy, compassion and underpinning emotional resilience to manage day-to-day pressures in unpredictable, emergency and distressing situations, e.g. patients in cardiac arrest, patients suffering life changing injuries and/or disease diagnosis.
- B2:** Confident, flexible and adaptable within own scope of practice.
- B3:** Demonstrate emotional intelligence.
- B4:** Act with professionalism, honesty, integrity and respect in all interactions. Maintain good character as outlined in their professional Code of Conduct and not bring their profession or organisation into disrepute.
- B5:** Reflect on own impact on others, take responsibility and be accountable for own actions. Sensitively challenge others and raise issues when appropriate.
- B6:** Actively reflect on own practice and accept and respond to constructive criticism. Be proactive in implementing improvements in order to improve service delivery and patient care.

**B7:** Be aware of and take responsibility for their own fitness in context of physical and/or mental health issues which may affect performance. Seek help and/or guidance as appropriate. Inform Health and Care Professions Council and employer of any change of circumstance that may affect the right to practise.

## Qualifications

### English and Maths qualifications

Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

## Other qualifications

**Mandatory qualification 1: BSc (Hons) Diagnostic Radiography or (where the apprentice already holds a level 6 honours degree) a pre-registration MSc in Diagnostic Radiography.**

**Level of qualification:** 6 (integrated degree)

**Basis for mandatory qualification:** Regulatory requirement

## Professional recognition

Society and College of Radiographers / Level 6 and Level 7

## Additional details

**Occupational Level:** 6

**Duration (months):** 36

## Review

This standard will be reviewed after three years.

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## Version log

VERSION	DATE UPDATED	CHANGE	PREVIOUS VERSION
1	07/12/2018	Standard first published	Not available