

Radiography Students – Standards of Medical Fitness to Train

Introduction

This document has been drafted by Higher Education Occupational Practitioners (HEOPS), following wide consultation, as guidance for those providing occupational health advice to Higher Educational Institutions (HEIs) on applicants/students' fitness to train and meet the required standards on completion of graduation. All applicantsⁱ should complete a health screening program before commencing the programme. Studentsⁱⁱ who develop a health condition that may affect their medical fitness to train, work or practise, may need to have their medical fitness re-assessed. The standards for training for radiography are defined by the Health and Care Professions Council (HCPC)¹. The immunity and immunisation standards are based on the Department of Health and Social Care (DHSC)^{2,3} guidance. The general work health assessment standards are based on NHS Employer recommendations⁴.

These standards meet the criteria in the Equality Act 2010⁵ in that they are a proportionate means of achieving the legitimate aim of protecting

ⁱ In this document applicant refers to an individual who has applied to enrolled to the relevant training.

ⁱⁱ In this document student refers to an individual who has enrolled to the relevant training.

service user safety, and they are targeted at functions which are intrinsic to the discipline.

Applicants who have serious concerns that a medical condition may have implications for future ability to train as a radiographer should, at an early stage, and even before making a formal application, contact the course provider and if appropriate be offered professional advice. There is an obligation on HEIs to make reasonable adjustments for applicants/students with disabilities where such adjustments enable an applicant/student with a disability to fulfil the required competencies to graduate and work as a radiographer, meeting the HCPC requirements.

Medical and personal information disclosed during the assessment processes should be held "in confidence" by the occupational health service in accordance to the statute (UK General Data Protection Regulation⁶ (UK GDPR) and the Data Protection Act 2018⁷) and common law, professional requirements set by relevant regulators such the General Medical Council⁸ (GMC) or Nursing and Midwifery Council⁹ (NMC) and ethical principles¹⁰. Explicit informed consent should be obtained from the applicant/student if it is necessary for medical information to be shared more widely.

OH should advise the HEI of the effect of health condition(s) on functional capacity, medical fitness to embark on the course and any adjustments necessary to allow the applicant/student to fulfil the required competencies for completion of training and professional practice after graduation. It is ultimately for the HEI to determine if the recommended adjustments are reasonable to be accommodated for the course but also for future practice as a radiographer.

The criteria for medical fitness to train as a radiographer are:

Immunity assessment and immunisation

Assessment of immunity must be in accordance with current DHSC guidance. It is imperative that OH applies the most recent guidance as the standard changes over time.

It is mandatory for the applicant/student to participate in necessary assessments to rule out active infection (for example TB symptom enquiry) that can put patients and others at risk. Those who fail to participate in such mandatory assessment must not be cleared to start the course.

Healthcare professionals including students are strongly advised to be immunised against certain vaccine preventable infectious disease in order to protect patients and themselves. However, at the time of publication of this guidance, no vaccination is mandatory.

OH and HEIs should have clear, risk-based policy and procedure on how to manage applicants/students who refuse immunisation, cannot have certain vaccines because of contraindication or do not produce adequate immunity in response to a vaccine.

Table 1 Immunity screening and immunisation

TB	Freedom from open active TB by symptom enquiry (mandatory) Ruling out latent TB by IGRA or Mantoux test or evidence of such testing Offer BCG to those with direct TB patient contact or contact with infectious materials in accordance to Green Book and NICE Guideline
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Measles	Evidence of 2 doses of measles containing vaccine Evidence of immunity (detectable measles IgG) 2x doses of measles containing vaccine
Rubella	Evidence of 2 doses of rubella containing vaccine Evidence of immunity (detectable rubella IgG) 2x doses of rubella containing vaccine
Varicella	Evidence of 2 doses of varicella vaccine Evidence of immunity (detectable varicella IgG) Consider accepting history of chicken pox 2x doses of varicella vaccine
Hepatitis B	If the risk assessment suggests there is a risk of body fluid exposure for a radiographer: Evidence of full course of vaccine Evidence of immunity (HBcAb positive, HBsAb >10 preferably >100) Full course of vaccine

Outcomes to be achieved for graduates

HEIs must be sure that radiography students can meet ALL the mandatory outcomes and competencies published by the regulator - the HCPC (2023)¹ and therefore to be fit to practise safely as a radiographer when they graduate.

Mandatory outcomes and competencies published by the regulator - the HCPC (2023)¹ include the following:

(these will not be assessed by occupational health)

Table 2 Mandatory outcomes at graduation

1	practise safely and effectively within their scope of practice
2	practise within the legal and ethical boundaries of their profession
3	look after their health and wellbeing, seeking appropriate support where necessary
4	practise as an autonomous professional, exercising their own professional judgement
5	recognise the impact of culture, equality and diversity on practice and practise in a non-discriminatory and inclusive manner
6	understand the importance of and maintain confidentiality
7	communicate effectively
8	work appropriately with others
9	maintain records appropriately
10	reflect on and review practice
11	assure the quality of their practice
12	understand and apply the key concepts of the knowledge base relevant to their profession
13	draw on appropriate knowledge and skills to inform practice
14	establish and maintain a safe practice environment
15	promote health and prevent ill health

The applicant and radiography student should have the physical, psychological, and cognitive functional capacity to achieve the above. HEIs must consider reasonable adjustments to support the applicant and radiography student to achieve the above however there is no requirement to make adjustments to competence standards themselves.

Assessment of functional capacity

It is imperative to recognise that assessment of medical fitness to study (and to work independently pre and post qualification) is based on a thorough and holistic functional capability assessment (FCA) to ensure that the applicant is, and will be on the balance of probability, able to safely achieve the core competencies and perform the core skills of the radiography profession safely and efficiently. The method of FCA depends on the merit of each case and may include history, physical examination or assessment of practical capability (not skills) within simulated or real environment. FCA will inform the adjustments including assistive technology.

Examples of conditions or impairment that may require in-depth assessment to ensure safe medical practice are listed below. These should be used as guidance only. Whilst not specifically mentioned below, conditions such as fatigue and or pain can temporarily, recurrently or chronically affect the following domains. The intensity and frequency of the impact should be taken into consideration when assessing the medical fitness of the applicant/student and the adjustments:

1. Lower limb function, mobility

Applicants/students should be able to mobilise sufficiently and independently and should be able to perform physical examination, maintain awkward postures and physically support dependent patients.

2. Upper limb function, dexterity

Applicants/students should have sufficient manual functions (if need be by use of prosthesis or auxiliary aid) including dexterity and strength to perform essential skills, including ensuring that service users are positioned (and if necessary immobilised) for safe

and effective physical examination and interventions.

Applicants/students should have sufficient dexterity to be able to operate equipment safely and accurately and undertake procedures. They should be able to use appropriate Personal Protective Equipment such as wearing a lead apron.

Applicants/students should be able to apply appropriate moving and handling techniques reliably and repeatedly, use basic or advance life support techniques and be able to deal safely with clinical emergencies and cardiopulmonary resuscitation including directing others to perform manual tasks when appropriate.

3. Vision

N6 near vision is needed to read 1mm text. N8 near vision is needed to detect a 3mm movement. 6/18 acuity is required to read digital monitor at a distance. 6/18 and N8 are the threshold for seeking the opinion of an Occupational Physician. All acuities are with correction. Testing of vision is not required as part of the assessment. However, applicants who are known to have a significant visual loss should be referred to the Occupational Physician.

Applicant/students should be able to select, move between and use appropriate forms of verbal and non-verbal communication with service users and others. Applicants/students should be able to use independent methods to establish and confirm service user identity prior to treatment. Applicants/students should have sufficient visual acuity to be able to use appropriate radiography techniques and equipment safely.

Applicants/students should be able to appraise image information for clinical manifestations and technical accuracy, and take further action as required.

4. Hearing

Applicants/students should be able to demonstrate effective and appropriate skills in communicating information, advice, instruction and professional opinion to colleagues, service users, their relatives, and carers. Audiometry is not required as part of the assessment. However, applicants who are known to have a hearing loss of more than 40dB across all speech frequencies should be referred to the Occupational Physician. Assessment of hearing should be after correction with hearing aids. Practical functional assessment of hearing, in cases where there is concern may be recommended.

Lip reading alone may be insufficient in certain situations. Applicants/students should be able to communicate through telephone and face to face in noisy areas.

5. Speech

Applicants/students should have the ability to speak clearly in English and be understood in a relatively quiet room with reasonable background noise.

6. Skin function

Skin must have integrity compatible with protection of patients and applicants/students from increased risk of infection. This is more important in exposed areas such as scalp, face and hands.

Applicants/students should be capable of following approved processes for cleaning/washing hands regularly including before procedures including with adjustments as necessary.

7. Interruption of consciousness

The risk must be low enough to represent minimal risk to service users, colleagues and the applicant/student.

8. Mental health and cognitive ability

Applicants/students should have the cognitive ability, memory, and awareness to understand and apply their knowledge base in a practical environment, including to be able to gather information, analyse, evaluate, form and follow appropriate patient care action plans. They should be able to meet the medical competence standards in relation to spoken, written and electronic communication with patients, colleagues, and carers, as well as the ability to undertake a relevant physical examination, including mental state examination. Applicants/students should have a full awareness of their own mental health, when to seek help and from whom. If an applicant/student has a condition that can significantly affect their judgement or performance, the case should be assessed by a specialist in occupational medicine or suitably experienced occupational health physician with a qualification in occupational medicine.

The emotional and cognitive impact of mental health disorders and neurodiversity may overlap. The list below is not exhaustive or exclusive and is provided as an example of areas to consider:

- a. ***Dyslexia/dyscalculia*** - Applicants/students should be able to read, understand, interpret, communicate, and keep notes effectively and accurately through written and electronic means. Adjustments to exam conditions and timings should be considered as well as time allowed for any project work. Applicants/students should be able to calculate complex radiation doses and exposures, scrutinise and interpret the radiation prescription in such a way that radiotherapy is delivered accurately.

Applicants/students should be able safely and effectively, keep

accurate, contemporaneous, and complete patient records. Applicants/students should be able to make patient records, which are clear, legible, accurate, and can be easily understood.

b. **Attention Deficit (Hyperactivity) Disorder** -

Applicants/students should be able to maintain effective concentration to remain safe and competent throughout the day, including with medication if required.

c. **Autistic Spectrum Disorder** - Applicants/students should be able to:

- communicate and understand verbal, non-verbal and written information.
- distinguish between literal and non-literal statements when taking a history.
- empathise with a patient and form effective working relationships with multidisciplinary teams.
- recognise a patient's vulnerability and safeguarding requirements by having situational awareness.
- perform a risk assessment and accurately follow the instruction in all aspects of safety and importantly radiation safety.

d. **Personality disorders** - Applicants/students should be able to maintain professionalism and always adhere to standards of ethics and behaviour. Disorders that result in recurrent lapses in conduct or judgement may not be compatible with fitness to train, work or practise.

e. **Mental Health** - Applicants/students should be stable with no altered perception of reality/psychotic episode for a reasonable period of time. In certain cases, the duration of stability can be a year or more and should be determined by an occupational health physician in liaison with the treating doctor based on the individual circumstances. The cognitive ability including concentration, memory and higher brain functions must be within reasonably normal range with no or low riskⁱⁱⁱ of suicide and self-harm. Applicants/student should have sufficient emotional resilience to cope with the stress and demands of the healthcare environment and confined space.

Applicants/students with long term mental health conditions, especially conditions where impairment of insight or psychotic features may occur, may require individual assessment by an accredited specialist in Occupational Medicine. It is likely that reports from treating clinicians may be required to form part of this assessment.

Applicants/students should 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.

f. **Drug and alcohol misuse** - Alcohol and various recreational substances use can affect cognition. If there is history of drug or alcohol misuse/dependence/addiction, it is important that the applicant/student has sought and engaged with treatment for their condition. The risk of relapse should be negligible or low and they should be able to demonstrate that they are

ⁱⁱⁱ The assessment of the risk of self-harm and suicide should not be used to determine access to treatment or care for the applicant / student.

abstinent from use of drugs and alcohol or their alcohol intake is limited to the recommended limits for a reasonable period of time. All such cases should be reviewed by a specialist in occupational medicine to consider input from the treating doctor and to decide on the period of stability and abstinence as well as drug and alcohol testing if required and in accordance with the institution's relevant policy.

9. Communication including Learning, language and numeracy skills

Applicants/students should be able to meet HCPC proficiency standards in relation to spoken, written and electronic communication with service users, colleagues, and carers.

Applicants/students should be able to follow the learning curriculum and meet the requirements of any knowledge and skill based professional learning outcomes. This refers to the student's learning ability rather than educational attainment.

Applicants/students should have the ability to:

- a. communicate information, advice, instruction and professional opinion to and from colleagues, service users, relatives and carers.
- b. undertake assessments of risk, need and capacity and respond appropriately.
- c. gather, analyse, critically evaluate, and use information and knowledge.
- d. keep accurate, comprehensive, and comprehensible records.
- e. be able to recognise the need to manage their own workload and resources safely and effectively.

Where an applicant/student has a disability causing impairment of these skills, the assessment should take into account the effects of reasonable adjustments that could enable the applicant/student to learn and to apply these skills appropriately in professional practice.

There may be a need for specific neurodiversity assessment by an appropriately qualified psychologist, an occupational health assessment can provide an objective opinion on the existence of a disability and advice on adjustments that may overcome disadvantage associated with the disability. The adequacy of these adjustments in enabling the applicant/student to achieve the mandatory competences may be best assessed by in-course assessments under supervision.

10. Environmental risk

The inherent hazards such as high intensity magnetic field or radiation should be taken into account for applicants/students and with specific medical conditions and medical devices (e.g. pacemakers, blood glucose monitoring and others) that might be affected by these environmental exposures.

11. Team Working

Applicants/students should be able to work in partnership with others including service users, carers, and colleagues. This includes being able to identify anxiety and stress in service users, carers, and colleagues, adapting their practice and providing support where appropriate.

Adjustments and support

The primary purpose of work health assessment is to identify adjustments that enable and support the applicant/student to study and work.

The OH practitioner should recommend adjustments based on an individual FCA for the consideration of the HEI. If the applicant is disabled within the meaning of the Equality Act 2010, the HEI must consider reasonable adjustments including auxiliary aid including but not limited to assistive technology, physical feature of the premises and alteration of provision, criterion, or practice (PCP).

It is entirely for the HEI (and employer) to decide if the adjustments are reasonable to be implemented. There is no requirement to make adjustments to competency standards themselves.

The Occupational Health process

The Occupational Health process should ensure suitable assessment of the applicant or student.

The process for applicants starts with a standardised health questionnaire which should be submitted in confidence to OH. If any relevant health condition or specific functional impairments are declared the applicant must be assessed by a suitably qualified and experienced OH practitioner. Assessment by an accredited specialist in occupational medicine may be required especially for complex cases and those that require complex adjustments and their fitness to study/work as a radiographer in the future may be compromised.

Screening and assessment should only be undertaken by qualified occupational health professionals or practitioners working under the clinical governance of specialist occupational health professionals.

Occupational health opinions should always be provided by a suitably qualified practitioner, evidence based, logical and reasoned and should lie within a reasonable range of professional opinion.

Depending on the nature of the condition being assessed, this process may involve:

1. Taking a full, relevant medical history
2. Physical examination if required
3. Psychological and cognitive assessment
4. Functional assessment
5. Seeking targeted, specific medical evidence, with consent, from treating doctors, or other health professionals to confirm diagnosis, severity, treatment and prognosis
6. Referral for physical or psychiatric assessment by medical specialists without a therapeutic conflict of interest
7. Reporting to the HEI in a timely manner, in accordance with current data protection legislation and rules of medical confidentiality

References

¹ [The standards of proficiency for radiographers HCPC](#)

² [Immunisation against infectious disease](#)

³ [Tuberculosis: NICE guideline \[NG33\]](#)

⁴ [Work health assessments standard](#)

⁵ [Equality Act 2010](#)

⁶ [Regulation \(EU\) 2016/679 of the European Parliament and of the Council \(UK GDPR\)](#)

⁷ [Data Protection Act 2018](#)

⁸ [Confidentiality: good practice in handling patient information - professional standards - GMC](#)

⁹ [The Code Professional standards of practice and behaviour for nurses, midwives and nursing associates, NMC](#)

¹⁰ [Ethics Guidance for Occupational Health Practice – 8th Edition](#)