

Biomedical scientists

Valid from 1 September 2023

Standards of proficiency

At the point of registration, biomedical scientists must be able to:

1 practise safely and effectively within their scope of practice

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

2 practise within the legal and ethical boundaries of their profession

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

3 look after their health and wellbeing, seeking appropriate support where necessary

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

4 practise as an autonomous professional, exercising their own professional judgement

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

5 recognise the impact of culture, equality and diversity on practice and practise in a non-discriminatory and inclusive manner

- 5.1 respond appropriately to the needs of all different groups and individuals in practice, recognising that this can be affected by difference of any kind including, but not limited to, protected characteristics¹, intersectional experiences and cultural differences
- 5.2 understand equality legislation and apply it to their practice

¹ The Equality Act 2010 defines the protected characteristics as age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage and civil partnership and pregnancy and maternity. Equivalent equality legislation in Northern Ireland protects age, disability, gender, race, religion or belief and sexual orientation.

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

6 understand the importance of and maintain confidentiality

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

7 communicate effectively

- 7.1 use effective and appropriate verbal and non-verbal skills to communicate with service users, carers, colleagues and others
- 7.2 communicate in English to the required standard for their profession (equivalent to level 7 of the International English Language Testing System, with no element below 6.5²)

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

- 7.3 understand the characteristics and consequences of verbal and non-verbal communication and recognise how these can be affected by difference of any kind including, but not limited to, protected characteristics³, intersectional experiences and cultural differences
- 7.4 work with service users and / or their carers to facilitate the service user's preferred role in decision-making, and provide service users and carers with the information they may need where appropriate
- 7.5 modify their own means of communication to address the individual communication needs and preferences of service users and carers, and remove any barriers to communication where possible
- 7.6 understand the need to support the communication needs of service users and carers, such as through the use of an appropriate interpreter
- 7.7 use information, communication and digital technologies appropriate to their practice
- 7.8 understand the need to provide service users or people acting on their behalf with the information necessary in accessible formats to enable them to make informed decisions
- 7.9 communicate the outcomes of biomedical procedures

8 work appropriately with others

- 8.1 work in partnership with service users, carers, colleagues and others
- 8.2 recognise the principles and practices of other health and care professionals and systems and how they interact with their profession
- 8.3 understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team
- 8.4 contribute effectively to work undertaken as part of a multi-disciplinary team
- 8.5 identify anxiety and stress in service users, carers and colleagues, adapting their practice and providing support where appropriate
- 8.6 understand the qualities, behaviours and benefits of leadership
- 8.7 recognise that leadership is a skill all professionals can demonstrate
- 8.8 identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion
- 8.9 demonstrate leadership behaviours appropriate to their practice
- 8.10 act as a role model for others
- 8.11 promote and engage in the learning of others

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- 8.12 understand the need to engage service users and carers in planning and evaluating diagnostics and assessment outcomes to meet their needs and goals
- 8.13 demonstrate awareness of the impact of pathology services on the service user care pathway

9 maintain records appropriately

- 9.1 keep full, clear and accurate records in accordance with applicable legislation, protocols and guidelines
- 9.2 manage records and all other information in accordance with applicable legislation, protocols and guidelines
- 9.3 use digital record keeping tools, where required
- 9.4 recognise, communicate and understand the risks and possible serious consequences of errors and omissions in both requests for, and results of, laboratory investigations
- 9.5 use systems for the accurate and correct identification of service users and laboratory specimens
- 9.6 understand the need to adhere to protocols of specimen identification, including bar coding and electronic tag systems
- 9.7 understand the importance of backup storage of electronic data

10 reflect on and review practice

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

11 assure the quality of their practice

- 11.1 engage in evidence-based practice
- 11.2 gather and use feedback and information, including qualitative and quantitative data, to evaluate the responses of service users to their care
- 11.3 monitor and systematically evaluate the quality of practice, and maintain an effective quality management and quality assurance process working towards continual improvement
- 11.4 participate in quality management, including quality control, quality assurance, clinical governance and the use of appropriate outcome measures
- 11.5 evaluate care plans or intervention plans using recognised and appropriate outcome measures, in conjunction with the service user where possible, and revise the plans as necessary

11.6 recognise the value of gathering and using data for quality assurance and improvement programmes

11.7 select and apply quality and process control measures

11.8 identify and respond appropriately to abnormal outcomes from quality indicators

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

12.1 understand the structure and function of the human body, together with knowledge of physical and mental health, disease, disorder and dysfunction relevant to their profession

12.2 demonstrate awareness of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process

12.3 recognise the role(s) of other professions in health and social care and understand how they may relate to the role of biomedical scientist

12.4 understand the structure and function of health and social care systems and services in the UK

12.5 understand the theoretical basis of, and the variety of approaches to, assessment and intervention

12.6 be able to demonstrate knowledge of the underpinning scientific principles of investigations provided by clinical laboratory services

12.7 understand the role of the following specialisms in the diagnosis, treatment and management of disease: cellular science, blood science, infection science, molecular and genetic science and reproductive science

12.8 be able to evaluate analyses using qualitative and quantitative methods to aid the diagnosis, screening and monitoring of health and disorders

12.9 understand the techniques and associated instrumentation used in the practice of biomedical science

12.10 understand the biological hazards groups and associated containment levels

13 draw on appropriate knowledge and skills to inform practice

13.1 change their practice as needed to take account of new developments, technologies and changing contexts

13.2 gather appropriate information

13.3 analyse and critically evaluate the information collected

13.4 select and use appropriate assessment techniques and equipment

13.5 undertake and record a thorough, sensitive and detailed assessment

13.6 undertake or arrange investigations as appropriate

- 13.7 conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively
- 13.8 recognise a range of research methodologies relevant to their role
- 13.9 recognise the value of research to the critical evaluation of practice
- 13.10 critically evaluate research and other evidence to inform their own practice
- 13.11 engage service users in research as appropriate
- 13.12 perform and supervise procedures in clinical laboratory investigations to reproducible standards
- 13.13 operate and utilise specialist equipment according to their discipline
- 13.14 validate scientific and technical data and observations according to pre-determined quality standards
- 13.15 demonstrate proficiency in practical skills in cellular science, blood science, infection science, molecular and genetic science and reproductive science, where appropriate to the discipline
- 13.16 demonstrate practical skills in the processing and analysis of specimens including specimen identification, the effect of storage on specimens and the safe retrieval of specimens
- 13.17 demonstrate practical skills in the investigation of disease processes
- 13.18 work in conformance with standard operating procedures and conditions
- 13.19 work with accuracy and precision
- 13.20 perform calibration and quality control checks
- 13.21 demonstrate operational management of laboratory equipment to check that equipment is functioning within its specifications and to respond appropriately to abnormalities
- 13.22 understand the implications of non-analytical errors
- 13.23 know the extent of the role and responsibility of the laboratory with respect to the quality management of hospital, primary care and community based laboratory services for near- service user testing and non-invasive techniques
- 13.24 formulate specific and appropriate management plans including the setting of timescales
- 13.25 select suitable specimens and procedures relevant to service users' clinical needs, including collection and preparation of specimens as and when appropriate
- 13.26 demonstrate awareness of the need to assess and evaluate new procedures prior to routine use
- 13.27 investigate and monitor disease processes and normal states
- 13.28 use standard operating procedures for analyses including point of care in vitro diagnostic devices
- 13.29 use statistical packages and present data in an appropriate format

- 13.30 design experiments, report, interpret and present data using scientific convention, including application of SI units and other units used in biomedical science
- 13.31 safely interpret and authorise service user results

14 establish and maintain a safe practice environment

- 14.1 understand the need to maintain the safety of themselves and others, including service users, carers and colleagues
- 14.2 demonstrate awareness of relevant health and safety legislation and comply with all local operational procedures and policies
- 14.3 work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner and in accordance with health and safety legislation
- 14.4 select appropriate personal protective equipment and use it correctly
- 14.5 establish safe environments for practice, which appropriately manages risk
- 14.6 understand the application of principles of good laboratory practice

15 promote and prevent ill health

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