

# **Standards of proficiency**

## **Biomedical scientists**

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# Foreword

We are pleased to present the Health and Care Professions Council's standards of proficiency for biomedical scientists.

We first published standards of proficiency for biomedical scientists when our Register opened in July 2003. We review the standards regularly to look at how they are working and to check they continue to reflect current practice in the professions we regulate.

These new revised standards are a result of our most recent review of the standards of proficiency. The revised standards reflect the extent of developments in practice within each profession, in line with feedback from our public consultation exercise. The consultation and engagement work identified key themes, which the new standards of proficiency embed. These focus on technology and digital skills, leadership, service user engagement, and health, wellbeing and maintaining fitness to practise. Equality, diversity and inclusion (EDI) is another key focus of the standards, with an expectation of registrants to be proactive in thinking about the care they can offer with specific importance on

making sure practice is inclusive for all service users. We have also made changes to the wording of the standards to move registrants away from a passive understanding of the standards and towards active implementation of them.

The profession-specific standards for biomedical scientists included in this document were developed with the input of the relevant professional bodies and the views of all stakeholders during our consultation work. The review process and consultation produced valuable feedback and we are grateful to all those who gave their time to help us in shaping the new standards.

We are confident that the standards are fit for purpose and reflect safe and effective professional practice for biomedical science.

These standards are effective from 1 September 2023.

# Introduction

This document sets out the standards of proficiency for biomedical scientists. These standards set out safe and effective practice in the professions we regulate. They are the threshold standards we consider necessary to protect members of the public. They set out what any applicant to our Register must know, understand and be able to do by the time they have applied for registration. Once on the Register, professionals must meet those standards of proficiency which relate to the areas in which they work.

We also expect registrants to keep to the HCPC standards of conduct, performance and ethics and standards for continuing professional development. We publish these in separate documents, which you can find on our website.

The standards of proficiency in this document include both generic elements, which apply to all our registrants, and profession-specific elements, which are relevant to registrants belonging to one of the professions we currently regulate.

The standards that apply to all professions are written in bold text.

The profession-specific standards are written in plain text.

We have numbered the standards so that you can refer to them more easily. The standards are not hierarchical and are all equally important for practice.

## A note about our expectations of you

You must meet all the standards of proficiency to register with us and meet the standards relevant to your scope of practice to stay registered with us.

It is important that you read and understand this document. If your practice is called into question, we will consider these standards (and the standards of conduct, performance and ethics) in deciding what action, if any, we need to take.

The standards set out in this document complement information and guidance issued by other organisations,

such as your professional body or your employer. We recognise the valuable role played by professional bodies in providing guidance and advice about good practice which can help you to meet the standards in this document.

## Your scope of practice

Your scope of practice is the area or areas of your profession in which you have the knowledge, skills and experience to practise lawfully, safely and effectively, in a way that meets the standards and does not pose any danger to the public or to yourself.

We recognise that a registrant's scope of practice will change over time and that the practice of experienced registrants often becomes more focused and specialised than that of newly registered colleagues. This might be because of specialisation in a certain area or with a particular client group, or a movement into roles in management, education or research. Every time you renew your registration, you will be asked to sign a declaration that you continue to meet the standards of proficiency that apply to your scope of practice.

**Your particular scope of practice may mean that you are unable to continue to demonstrate that you meet all of the standards that apply for the whole of your profession.**

As long as you make sure that you are practising safely and effectively within your given scope of practice and do not practise in the areas where you are not proficient to do so, this will not be a problem. If you want to move outside of your scope of practice, you should be certain that you are capable of working lawfully, safely and effectively. This means that you need to exercise personal judgement by undertaking any necessary training or gaining experience, before moving into a new area of practice.

## Meeting the standards

It is important that you meet these standards and are able to practise lawfully, safely and effectively. However, we do not dictate how you should meet the standards. There is normally more than one way in which each standard can be met and the way in which you meet the



standards might change over time because of improvements in technology or changes in your practice.

We often receive questions from registrants who are concerned that something they have been asked to do, a policy, or the way in which they work might mean they cannot meet the standards. They are often worried that this might have an effect on their registration.

As an autonomous professional, you need to make informed, reasoned decisions about your practice to ensure that you meet the standards that apply to you. This includes seeking advice and support from education providers, employers, colleagues, professional bodies, unions and others to ensure that the wellbeing of service users is safeguarded at all times. So long as you do this and can justify your decisions if asked to, it is very unlikely that you will not meet the standards.

## Language

We recognise that our registrants work in a range of different settings, which include direct practice,

management, education, research and roles in industry. We also recognise that the use of terminology can be an emotive issue.

Our registrants work with very different people and use different terms to describe the groups that use, or are affected by, their services. Some of our registrants work with patients, others with clients and others with service users. The terms that you use will depend on how and where you work. We have used terms in these standards which we believe best reflect the groups that you work with.

In the standards of proficiency, we use phrases such as ‘understand’ and ‘know’. This is so the standards remain applicable to current registrants in maintaining their fitness to practise, as well as prospective registrants who have not yet started practising and are applying for registration for the first time.

## These standards may change in the future

We have produced these standards after speaking to our stakeholders and holding a formal public consultation.

We will continue to listen to our stakeholders and will keep our standards under continual review. Therefore, we may make further changes in the future to take into account changes in practice.

We will always publicise any changes to the standards that we make by, for instance, publishing notices on our website and informing professional bodies.

# **Standards of proficiency**

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

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**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**

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**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 be able to obtain valid consent, which is voluntary and informed, has due regard to capacity, is proportionate to the circumstances and is appropriately documented**

**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 that comes with being a healthcare 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

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**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**

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**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**

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**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 groups and individuals in practice, recognising that this can be affected by difference of any kind including, but not limited to, protected characteristics,<sup>1</sup> intersectional experiences and cultural differences**

**5.2: understand equality legislation and apply it to their practice**

**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 their and others' practice**

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<sup>1</sup> 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.

**5.5: 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**

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**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 that confidentiality is maintained in all situations in which service users rely on additional communication support (such as interpreters or translators)**

**6.5: recognise that the concepts of confidentiality and informed consent extend to all mediums, including illustrative clinical records such as photography, video and audio recordings and digital platforms**

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## **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 6.5<sup>2</sup>)**

**7.3: understand the characteristics and consequences of verbal and non-verbal communication and recognise how these can be affected by difference of any kind, including, but not limited to, protected characteristics,<sup>3</sup> intersectional experiences and cultural differences**

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<sup>2</sup> 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 applying through the Swiss Mutual Recognition Route (SMR) must provide evidence that they have reached the necessary standard. More information is available here: [Statement on English language proficiency requirements for internationally trained health and care professionals.](#)

<sup>3</sup>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.

**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**

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## **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**

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

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## **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**

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## **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 response 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

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**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

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**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 their 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

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## **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 manage risk**

14.6: understand the application of principles of good laboratory practice

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**15: promote health 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 wellbeing**

**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**