

Standards of proficiency

Comparison table: Biomedical scientists

This table compares the standards of proficiency that came into effect on 1 September 2023 (left) and the standards that were in place before that date (right).

	<u>Current standards (2023)</u>	<u>Previous standards (pre-2023)</u>
	At the point of registration, biomedical scientists must be able to:	Registrant biomedical scientists must:
1	practise safely and effectively within their scope of practice	be able to 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	know the limits of their practice and when to seek advice or refer to another professional
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	recognise the need to manage their own workload and resources effectively and be able to practise accordingly
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	be able to practise within the legal and ethical boundaries of their profession
2.1	maintain high standards of personal and professional conduct	understand the need to act in the best interests of service users at all times
2.2	promote and protect the service user's interests at all times	understand what is required of them by the Health and Care Professions Council

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	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	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	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	respect and uphold the rights, dignity, values and autonomy of service users, including their role in the assessment, diagnostic, treatment and/or therapeutic process	know about current legislation applicable to the work of their profession
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	be aware of the British, European and International Standards that govern and affect pathology laboratory practice
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	understand the importance of and be able to obtain informed consent
2.8	understand the importance of capacity in the context of delivering care and treatment	be able to exercise a professional duty of care
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	
3	look after their health and wellbeing, seeking appropriate support where necessary	be able to maintain fitness to practise
3.1	identify anxiety and stress in themselves and recognise the potential impact on their practice	understand the need to maintain high standards of personal and professional conduct
3.2	understand the importance of their own mental and physical health and wellbeing strategies in maintaining fitness to practise	understand the importance of maintaining their own health
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	understand both the need to keep skills and knowledge up to date and the importance of career-long learning
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	be able to 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	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
4.2	use their skills, knowledge and experience, and the information available to them, to make informed decisions and/or take action where necessary	be able to make reasoned decisions to initiate, continue, modify or cease treatment or the use of techniques or procedures, and record the decisions and reasoning appropriately
4.3	make reasoned decisions to initiate, continue, modify or cease treatment, or the use of techniques or procedures, and record the decisions and reasoning appropriately	be able to initiate resolution of problems and be able to exercise personal initiative
4.4	make and receive appropriate referrals, where necessary	recognise that they are personally responsible for and must be able to justify their decisions
4.5	exercise personal initiative	be able to make and receive appropriate referrals
4.6	demonstrate a logical and systematic approach to problem-solving	understand the importance of participation in training, supervision and mentoring
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	be aware of the impact of culture, equality and diversity on practice

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, intersectional experiences and cultural differences	understand the requirement to adapt practice to meet the needs of different groups and individuals
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	
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	be able to practise in a non-discriminatory manner

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	
7	communicate effectively	understand the importance of and be able to maintain confidentiality
7.1	use effective and appropriate verbal and non-verbal skills to communicate with service users, carers, colleagues and others	be aware of the limits of the concept of confidentiality
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)	understand the principles of information governance and be aware of the safe and effective use of health and social care 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 characteristics, intersectional experiences and cultural differences	be able to recognise and respond appropriately to situations where it is necessary to share information to safeguard service users or the wider public
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	be able to communicate effectively

8.1	work in partnership with service users, carers, colleagues and others	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
8.2	recognise the principles and practices of other health and care professionals and systems and how they interact with their profession	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
8.3	understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team	understand how communication skills affect assessment of, and engagement with, 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
8.4	contribute effectively to work undertaken as part of a multi-disciplinary team	be able to communicate the outcomes of biomedical procedures
8.5	identify anxiety and stress in service users, carers and colleagues, adapting their practice and providing support where appropriate	be able to select, move between and use appropriate forms of verbal and non-verbal communication with service users and others
8.6	understand the qualities, behaviours and benefits of leadership	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
8.7	recognise that leadership is a skill all professionals can demonstrate	understand the need to provide service users or people acting on their behalf with the information necessary to enable them to make informed decisions
8.8	identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion	understand the need to assist the communication needs of service users such as through the use of an appropriate interpreter, wherever possible

8.9	demonstrate leadership behaviours appropriate to their practice	recognise the need to use interpersonal skills to encourage the active participation of service users
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	be able to work appropriately with others
9.1	keep full, clear and accurate records in accordance with applicable legislation, protocols and guidelines	be able to work, where appropriate, in partnership with service users, other professionals, support staff and others
9.2	manage records and all other information in accordance with applicable legislation, protocols and guidelines	understand the need to build and sustain professional relationships as both an independent practitioner and collaboratively as a member of a team
9.3	use digital record keeping tools, where required	understand the need to engage service users and carers in planning and evaluating diagnostics, treatments and interventions to meet their needs and goals
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	be able to contribute effectively to work undertaken as part of a multi-disciplinary team
9.5	use systems for the accurate and correct identification of service users and laboratory specimens	be aware of the impact of pathology services on the patient care pathway

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	be able to maintain records appropriately
10.1	understand the value of reflective practice and the need to record the outcome of such reflection to support continuous improvement	be able to keep accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines
10.2	recognise the value of multi-disciplinary reviews, case conferences and other methods of review	recognise the need to manage records and all other information in accordance with applicable legislation, protocols and guidelines
		10.3 be able to recognise, communicate and understand the risks and possible serious consequences of errors and omissions in both requests for, and results of, laboratory investigations
		10.4 be able to use systems for the accurate and correct identification of patients and laboratory specimens
		10.5 understand the need to adhere to protocols of specimen identification, including bar coding and electronic tag systems
		10.6 understand the importance of backup storage of electronic data
11	assure the quality of their practice	be able to reflect on and review practice
11.1	engage in evidence-based practice	understand the value of reflection on practice and the need to record the outcome of such reflection

11.2	gather and use feedback and information, including qualitative and quantitative data, to evaluate the response of service users to their care	recognise the value of case conferences and other methods of review
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	be able to assure the quality of their practice

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	be able to engage in evidence-based practice, evaluate practice systematically and participate in audit procedures
12.2	demonstrate awareness of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process	be able to gather information, including qualitative and quantitative data, that helps to evaluate the responses of service users to their care
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	be aware of the role of audit and review in quality management, including quality control, quality assurance and the use of appropriate outcome measures
12.4	understand the structure and function of health and social care systems and services in the UK	be able to maintain an effective audit trail and work towards continual improvement
12.5	understand the theoretical basis of, and the variety of approaches to, assessment and intervention	be aware of, and be able to participate in, quality assurance programmes, where appropriate
12.6	be able to demonstrate knowledge of the underpinning scientific principles of investigations provided by clinical laboratory services	be able to evaluate intervention plans using recognised outcome measures and revise the plans as necessary in conjunction with the service user
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	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
12.8	be able to evaluate analyses using qualitative and quantitative methods to aid the diagnosis, screening and monitoring of health and disorders	be able to select and apply quality and process control measures

12.9	understand the techniques and associated instrumentation used in the practice of biomedical science	be able to identify and respond appropriately to abnormal outcomes from quality indicators
12.10	understand the biological hazards groups and associated containment levels	
13	draw on appropriate knowledge and skills to inform practice	understand the key concepts of the knowledge base relevant to their profession
13.1	change their practice as needed to take account of new developments, technologies and changing contexts	understand the structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to their profession
13.2	gather appropriate information	be aware of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process
13.3	analyse and critically evaluate the information collected	recognise the role of other professions in health and social care
13.4	select and use appropriate assessment techniques and equipment	understand the structure and function of health and social care services in the UK
13.5	undertake and record a thorough, sensitive and detailed assessment	understand the concept of leadership and its application to practice
13.6	undertake or arrange investigations as appropriate	understand the theoretical basis of, and the variety of approaches to, assessment and intervention
13.7	conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively	be able to demonstrate knowledge of the underpinning scientific principles of investigations provided by clinical laboratory services

13.8	recognise a range of research methodologies relevant to their role	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
13.9	recognise the value of research to the critical evaluation of practice	be able to evaluate analyses using qualitative and quantitative methods to aid the diagnosis, screening and monitoring of health and disorders
13.10	critically evaluate research and other evidence to inform their own practice	understand the techniques and associated instrumentation used in the practice of biomedical science
13.11	engage service users in research as appropriate	understand the biological hazards groups and associated containment levels
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	
14	establish and maintain a safe practice environment	be able to draw on appropriate knowledge and skills to inform practice
14.1	understand the need to maintain the safety of themselves and others, including service users, carers and colleagues	be able to change their practice as needed to take account of new developments or changing contexts
14.2	demonstrate awareness of relevant health and safety legislation and comply with all local operational procedures and policies	be able to conduct appropriate diagnostic or monitoring procedures, treatment, therapy or other actions safely and effectively
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	be able to perform and supervise procedures in clinical laboratory investigations to reproducible standards
14.4	select appropriate personal protective equipment and use it correctly	be able to operate and utilise specialist equipment according to their discipline
14.5	establish safe environments for practice, which appropriately manage risk	be able to validate scientific and technical data and observations according to pre-determined quality standards

14.6	understand the application of principles of good laboratory practice	be able to demonstrate proficiency in liquid handling methodologies, including preparation of standard solutions and buffers
		14.7 be able to demonstrate proficiency in practical skills in cellular science, blood science, infection science, molecular and genetic science and reproductive science, where appropriate to the discipline
		14.8 be able to 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
		14.9 be able to demonstrate practical skills in the investigation of disease processes
		14.10 be able to work in conformance with standard operating procedures and conditions
		14.11 be able to work with accuracy and precision
		14.12 be able to prepare reagents accurately and consistently
		14.13 be able to perform calibration and quality control checks
		14.14 be able to demonstrate operational management of laboratory equipment to check that equipment is functioning within its specifications and to respond appropriately to abnormalities
		14.15 understand the implications of non-analytical errors

		14.16 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-patient testing and non-invasive techniques
		14.17 be able to formulate specific and appropriate management plans including the setting of timescales
		14.18 be able to gather appropriate information
		14.19 be able to select suitable specimens and procedures relevant to patients' clinical needs, including collection and preparation of specimens as and when appropriate
		14.20 be able to select and use appropriate assessment techniques
		14.21 be able to undertake and record a thorough, sensitive and detailed assessment, using appropriate techniques and equipment
		14.22 be aware of the need to assess and evaluate new procedures prior to routine use
		14.23 be able to undertake or arrange investigations as appropriate
		14.24 be able to analyse and critically evaluate the information collected
		14.25 be able to investigate and monitor disease processes and normal states
		14.26 be able to use standard operating procedures for analyses including point of care in vitro diagnostic devices
		14.27 be able to use statistical packages and present data in an appropriate format

		14.28 be able to demonstrate a logical and systematic approach to problem solving
		14.29 be able to use research, reasoning and problem solving skills to determine appropriate actions
		14.30 recognise the value of research to the critical evaluation of practice
		14.31 be aware of a range of research methodologies
		14.32 be able to evaluate research and other evidence to inform their own practice
		14.33 be able to design experiments, report, interpret and present data using scientific convention, including application of SI units and other units used in biomedical science
		14.34 be able to use information and communication technologies appropriate to their practice
15	promote health and prevent ill health	understand the need to establish and maintain a safe practice environment
15.1	understand the role of their profession in health promotion, health education and preventing ill health	understand the need to maintain the safety of both service users and those involved in their care
15.2	understand how social, economic and environmental factors (wider determinants of health) can influence a person's health and wellbeing	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	empower and enable individuals (including service users and colleagues) to play a part in managing their own health	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

15.4	engage in occupational health, including being aware of immunisation requirements	be able to select appropriate personal protective equipment and use it correctly
		15.5 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
		15.6 understand the application of principles of good laboratory practice