Institute of Biomedical Science

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IBMS REGISTRATION TRAINING PORTFOLIO VERSION 5.0

Guidance for Candidates

January 2024

Contents

1. INTRODUCTION

Congratulations on starting your pre-registration training to become a biomedical scientist! This Guidance document is designed to help you to understand the IBMS Registration Training Portfolio Version 5.0, what it contains and what you are expected to do to complete it. The portfolio is mapped to the Health and Care Professions Council (HCPC) standards of proficiency (SoPs) for biomedical scientists and you will need to demonstrate that you meet each standard to successfully complete the portfolio. The mapping of the standards to the portfolio is summarised in Appendix 1.

You will work with your Training Officer to discuss your training plan and work on collecting pieces of evidence to upload to your digital portfolio, using the Onefile platform. The portfolio is comprised of 10 modules across 2 sections and requires a total of 30 pieces of evidence to be submitted. You will work with your Training Officer to create 10 pieces of mandatory evidence (one for each module). Information on the mandatory pieces of evidence can be found in Appendix 2.

Evidence 2 and 3 for each module are a free choice for you to create and agree with your Training Officer but these must map clearly to the remaining HCPC standards of proficiency for the module. The types of evidence to be used for the mandatory evidence (evidence 1) plus examples of other evidence that you could consider including for pieces of evidence 2 and 3 are shown in Appendix 3.

You should meet with your Training Officer regularly as you work through your pre-registration training to create and collate your pieces of evidence. Appendix 4 contains a template that you can use to record these meetings and your agreed actions from them. Your digital portfolio on Onefile contains an area to upload, update, annotate and agree the final sign off for each piece of evidence that you agree to include in your portfolio. Once all your pieces of evidence have been completed, uploaded and signed off, your Training Officer will contact the IBMS using the registration@ibms.org email address to request the verification (assessment) of your portfolio (unless you are completing an integrated degree such as BSc Applied Biomedical Science or a level 6 degree apprenticeship. In this case your University Tutor will organise the verification and notify the IBMS Education Team who will verify your portfolio).

You (the candidate) have chosen to pursue a career as a biomedical scientist, which is the protected title awarded by the Health and Care Professions Council (HCPC) to those who carry out a range of laboratory investigations and scientific techniques on tissue samples and fluids to assist in the diagnosis and monitoring of disease, evaluate the effectiveness of treatments and provide expert advice for the treatment of patients and prevention of disease.

Those wishing to use the protected title of Biomedical Scientist are required by statute to register with the Health and Care Professions Council (HCPC) www.hcpc-uk.org. Eligibility to apply for registration is based on achieving the HCPC Standards of Education and Training (SETs) and the updated HCPC Standards of Proficiency (SoPs) (2022) for biomedical scientists. You must also be aware of the HCPC standards of conduct, performance and ethics which provides the ethical framework within which HCPC registrants must work.

The role of the Institute of Biomedical Science (IBMS) www.ibms.org in this process is as the awarding body for the Certificate of Competence. The Certificate of Competence is awarded to individuals who have completed an appropriate BSc degree programme (either an IBMS accredited programme, or a non-accredited BSc honours programme followed by supplementary education, identified by an IBMS degree assessment) **and** meet the competency requirements of the HCPC Standards of Proficiency for biomedical scientists by successful completion of the IBMS Registration Training Portfolio.

The IBMS Registration Training Portfolio is a record of education and training in the workplace, providing evidence that the knowledge, skills and competencies required for HCPC registration have been achieved. Completion of the IBMS registration training portfolio and the production of your evidence of achievement must take place in an IBMS approved training laboratory and be supported by a structured training programme. Responsibilities lie with the candidate to ensure they only work within the limits of their practice, and with the trainer to ensure that they are satisfied that **each** standard of proficiency has been met, as evidenced by their sign-off of the candidate's evidence presented in their digital portfolio, hosted on Onefile. The HCPC SoPs should be signed off and dated when they are achieved, not when the portfolio is completed.

Once complete, the portfolio evidence will be verified by an external assessor (the verifier) and if the verification is successful, the candidate is declared 'fit to practise' as a Biomedical Scientist and is eligible to apply for professional registration with the HCPC.

This document provides guidance on completion of the Institute of Biomedical Science (IBMS) Registration Training Portfolio Version 5.0 and the verification process (assessment of the completed portfolio).

2. PURPOSE OF THE REGISTRATION TRAINING PORTFOLIO

The IBMS facilitates the completion of the HCPC Standards of Education and Training (SETs) through completion of an appropriate IBMS-accredited BSc Biomedical Science degree programme (or non-IBMS-accredited degree, plus supplementary education, or "top-up" modules) and the HCPC Standards of Proficiency (SoPs) though the IBMS Registration Training Portfolio. A candidate must have successfully completed the required degree qualification **and** the Registration Training Portfolio to receive their IBMS Certificate of Competence.

The HCPC standards of proficiency for biomedical scientists are specific to the profession. It is important for training laboratories and candidates to recognise that the academic knowledge base is mainly provided by the IBMS-accredited degree programme (or non-accredited degree plus the identified supplementary education or "top-up" modules). The IBMS Registration Training Portfolio provides the framework for the continued education and laboratory-based training of candidates that allows them to demonstrate that they meet the HCPC standards of proficiency for biomedical scientists. The candidate can demonstrate the HCPC standards of proficiency by training either within a single pathology discipline, or in more than one discipline.

The IBMS verifies competence to practise against the HCPC Standards of Proficiency once the Registration Training Portfolio has been completed by a process of independent assessment (the verification). Following successful verification and completion of their degree programme, the IBMS Certificate of Competence can be awarded to individuals who wish to apply to register as a biomedical scientist with the HCPC.

Individuals awarded the Certificate of Competence will, at the threshold level of fitness to practise, be able to:

- demonstrate professionalism by working in accordance with good professional practice in partnership with other professionals, support staff, patients and service users
- demonstrate a knowledge and application of health and safety requirements
- undertake the correct procedures for the handling of specimens, before, during and after analysis
- use the main laboratory computer system in accordance with service requirements
- operate equipment used in the preparation and analysis of samples
- perform a range of laboratory tests without the need for immediate supervision, and demonstrate knowledge of the scientific basis for tests and the disease processes under investigation
- demonstrate awareness of factors affecting sample integrity, risks associated with the sample reagents or method, and other tests indicated by the outcome of the analysis
- be able to apply principles of quality control and quality assurance
- demonstrate skills in troubleshooting and resolving typical problems in the clinical laboratory and be familiar laboratory safety, laboratory regulations, information systems and management.

The HCPC standards of proficiency for biomedical scientists (2022) have been grouped together into relevant modules within the IBMS Registration Training Portfolio Version 5.0 and identified as either a knowledge or competence standard. The purpose of these standards is to ensure that all registered practitioners meet the same threshold standards of competence on Day 1 of registered practice. The standards do not necessarily demonstrate the candidate's ability to fulfil a particular role, nor are they a demonstration of specific in-depth knowledge and skills within a particular discipline.

As the Registration Training Portfolio only demonstrates a threshold level of competence required for registration and autonomous practice, it is expected that practitioners will undergo further post-registration training to enhance their knowledge and scope of practise specific to a discipline or disciplines. The higher and specialist qualifications offered by the IBMS to support this journey can be found here: https://www.ibms.org/education/

3. UNDERSTANDING THE HCPC STANDARDS OF PROFICIENCY

The HCPC standards of proficiency set out safe and effective practise in the professions that the HCPC regulates. They are the threshold standards considered necessary to protect members of the public. They set out what the candidate must know, understand and be able to do when they have completed their training. By demonstrating these standards, you will be able to apply to register with the HCPC as a biomedical scientist. Once on the register, you must continue to meet the standards of proficiency which relate to the areas in which you work and record CPD (continuing professional development) activities regularly to evidence to the HCPC if you are chosen to be audited.

Due to the natural groupings of some HCPC standards of proficiency (SoPs), they have been organised into two sections in the IBMS Registration Training Portfolio as shown below:

Section 1 Professional Conduct

This section is core to the principles of fitness to practise and is defined by standards that relate to professional roles and conduct. The modules within this section are:

- Module 1: Personal Responsibility and Development
- Module 2: Equality, Diversity and Inclusion
- Module 3: Communication
- Module 4: Patient Records and Data Handling
- Module 5: Professional Relationships

Section 2 Professional Practise

This section is core to the principle of applicants being able to demonstrate that they have the knowledge and skills required to practise as biomedical scientists. The modules within this section are:

- Module 1: Professional Knowledge
- Module 2: Health and Safety and Wellbeing
- Module 3: Quality
- Module 4: Performing Standard Investigations
- Module 5: Research and Development

The IBMS has grouped the standards together into relevant sections and modules, identifying each one as either a knowledge or competence standard. As a result, the standards are not listed in numerical order throughout the portfolio when compared to the HCPC full list of standards of proficiency but are instead listed in the module where they will be demonstrated.

It is important for you as the candidate to understand the implications of the standards of proficiency and how they relate to your professional practise, as failure to work to these standards could lead to

exclusion from the register. For example, registrants must abide by the standards of conduct, performance and ethics as this relates to standards of proficiency in Section 1 Module 1 (Professional Responsibility and Development) of the Registration Training Portfolio. Evidence in this module must demonstrate that you understand the implication of these standards to your practice and monitoring during your training must confirm that you apply them to your practice.

To be eligible to apply for registration as a biomedical scientist, you must evidence how you meet **all** HCPC standards of proficiency for a biomedical scientist.

4. LABORATORY TRAINING

The IBMS Registration Training Portfolio can only be completed in laboratories that hold IBMS pre-registration training approval. This ensures that the laboratory has the necessary training plans, support and resources in place to ensure that the candidate is able to undertake the necessary training to complete the portfolio.

Each candidate must have a training plan that sets out the sections of the laboratory they will rotate through, the expected duration in each area, the standards to be covered, and how that may be done. The training rotation is an intended programme and the IBMS recognises that service pressures can affect its delivery. While the IBMS encourages rotation around multiple departments to gain broad experience of pathology, this is not compulsory and the portfolio can be completed successfully within a single discipline or department.

There should be regular (typically monthly) meetings between the candidate and their allocated trainer/mentor. The aims of these meetings are to:

- set training targets in line with the training programme
- review previous work and evidence
- highlight any issues or concerns
- ensure the portfolio is on target for completion.

An example template to record these sessions is available in Appendix 4.

If an employee wishes to seek alternative employment while completing the Registration Training Portfolio and is able to transfer to another IBMS approved laboratory then their portfolio is transferrable. However, the laboratory that applies for the verification is responsible for ensuring the candidate has achieved all the standards of proficiency and has completed the required evidence to the appropriate standard. The laboratory may therefore wish to re-assess the individual's competence and/or require certain pieces of evidence to be re-done and signed off. In such circumstances, any relevant sections of the portfolio already completed in the previous laboratory must be identified, updated and countersigned by the responsible trainer in the new laboratory.

The length of time to complete the Registration Training Portfolio will vary but is typically expected to take approximately 9-12 months. There is a requirement for evidence to be current (i.e. within three years of the verification). Evidence older than three years should not be included unless, in exceptional circumstances, currency can be confirmed by the trainer and the piece of evidence has been updated appropriately.

5. COMPLETING THE REGISTRATION TRAINING PORTFOLIO

The IBMS Registration Training Portfolio is issued to the candidate (using a unique case number) and cannot be transferred to another individual. This case number should be quoted in any communication with the IBMS Education Team or the verifier about the IBMS Registration Training Portfolio Version 5.0 (ideally in the subject line of any email).

Evidence of Achievement

The updated HCPC standards of proficiency for biomedical scientists (2022) contain 129 SoPs across 15 sections. These HCPC SoPs have been grouped together in modules in the IBMS Registration Training Portfolio so that it is more obvious where knowledge and skills overlap. This enables the candidate to demonstrate that several standards have been met in each piece of evidence. Each piece of evidence in the portfolio should be clearly mapped to the standards of proficiency that the candidate and trainer agree the evidence demonstrates. Each module has been mapped to the relevant standards of proficiency as shown in the summary table in Appendix 1.

The candidate is required to produce three separate pieces of evidence for each module of the IBMS Registration Training Portfolio, resulting in a total of 30 pieces of evidence for the entire portfolio. The selection of each piece of evidence is the responsibility of the candidate, but choices should be guided by the training officer and informed by the training plan.

Please note: Each module of the Registration Training Portfolio Version 5.0 contains one piece of mandatory evidence. Each mandatory piece of evidence has been mapped to specified HCPC SoPs, as shown in Appendix 2 and the mandatory pieces of evidence must be completed as instructed in each module of the portfolio. More information on evidence types that must be used for the mandatory pieces of evidence is given in Appendix 3.

Evidence 2 and 3 for each module of the portfolio are a free choice for the candidate and trainer to agree and must evidence the remaining HCPC SoPs for the module. Example types of evidence that may be generated during training that could be used to demonstrate the remaining HCPC standards of proficiency per module are given in Appendix 3.

Please note: the examples of evidence types given for evidence 2 and 3 in Appendix 3 are neither definitive nor comprehensive and trainers and candidates do not have to follow them. The pieces of evidence chosen do, however, have to map clearly to the remaining HCPC SoPs for the module.

The portfolio is expected to contain a range of different types of evidence and not a limited selection of evidence types. Some common evidence types include reflective statements, audits, feedback from presentations, annotated documents/laboratory results and question and answer tutorials. The candidate is expected to select pieces of evidence that cover several standards of proficiency. The generic nature of the standards of proficiency permits different types of evidence to be acceptable. The best examples of evidence will demonstrate the candidate's knowledge and understanding, plus their application of this knowledge and understanding in a laboratory-based activity.

The candidate is required to justify the selection of each piece of evidence and identify the standards of proficiency it demonstrates. The verification visit will be used to review the justification for the selected pieces of evidence, in addition to how well the piece of evidence demonstrates the stated HCPC SoPs.

The justification for each mandatory piece of evidence is given in the summary tables in Appendix 2. The candidate and trainer are responsible for writing clear justifications for evidence 2 and 3 per module.

It is the named Training Officer's responsibility to ensure that all HCPC standards of proficiency within a module have been met across the 3 pieces of evidence, before signing them off. The purpose of the verification visit is to review the 30 pieces of evidence to give a holistic overview of the whole training and evidence collection process and ensure that **all** the HCPC standards of proficiency have been met. The candidate will be expected to defend their choices of evidence during the verification and their interaction with the verifier.

Evidence of the Training Officer's review, annotation and inclusion of constructive feedback is expected on each piece of evidence. The use of feedback is very important, and improvement should be seen in evidence throughout the portfolio in response to the feedback given. An example of good evidence would be where a candidate undertakes a task, receives constructive feedback, responds to this, and progress can be seen in the final version of the piece of evidence. Evidence of this feedback loop demonstrates a good relationship between trainer and candidate and is useful to the verifier in assessing the quality of the training experience.

- The candidate should annotate any evidence that is not their original work (e.g. printout of results)
- Every page of evidence should be annotated; if you can't comment on it to show how it has enhanced your practice, then it should not be in the portfolio.
- Highlighting and underlining text in a piece of evidence alone is insufficient; it must be obvious why it has been offered as evidence
- The candidate needs to demonstrate their knowledge and understanding and apply this to the laboratory context
- Each piece of evidence should be clearly linked back to the SoP's it demonstrates
- Lack of annotation can result in that piece of evidence beingdiscounted or require updating

Portfolio ownership rests with you as the candidate, so you should check with your training officer that each piece of evidence is appropriate and meets the required standard for external verification. All pieces of evidence in your Onefile portfolio will require sign-off by you (the candidate) and your training officer. This demonstrates ownership of the work by the candidate, and that it has also been reviewed and assessed by the trainer.

Referencing and plagiarism

All pieces of evidence in your portfolio should be original and not reproduced from other sources. All written pieces of evidence that use information from published sources (published journal articles, textbooks, web pages, manufacturer's instructions etc) should contain an intext citation and the full reference presented in a reference list. During your degree programme, you will have had information on academic misconduct and plagiarism and how to avoid it.

When referencing, it is common to reference in the Harvard style, ie including the name of the author or organisation, the year of publication, the title of the article or book chapter, and page numbers. If the source is from the internet, it should be referenced using the name of the author or organisation, the year of publication, the title of the piece, the unique URL and the date on which the website was accessed. You should agree with your trainer how you will reference source material in your portfolio evidence.

Below is an example of a website reference:

In-text citation example

(ThermoFisher (2023))

Reference format in the Reference List

ThermoFisher (2023) 5 Steps to efficient PCR.

Available at: https://www.thermofisher.com/uk/en/home/life-science/pcr/5-steps-pcr.html

(Accessed: 1st September 2023).

Below is an example of a journal article reference:

In-text citation example:

(Salvi, Michielli and Molinari (2020))

Reference format in the Reference List:

Salvi M, Michielli N and Molinari F. (2020). Stain Color Adaptive Normalization (SCAN) algorithm: Separation and standardization of histological stains in digital pathology. Comput Methods Programs Biomed.;193:105506. doi: 10.1016/j.cmpb.2020.105506. Epub 2020 Apr 17. PMID: 32353672.

A plagiarism statement confirms that the portfolio is your own work. It is important that you acknowledge the various resources used during your training and in your evidence. Any evidence of plagiarism will result in failure of the portfolio, and you will be required to complete a new Registration Training Portfolio.

All candidates will be asked to digitally sign this declaration statement in the Onefile portfolio:

I declare that the 30 pieces of evidence presented to support this registration training portfolio are all my own work and do not contain unreferenced material copied from any other source.

I understand the definition of plagiarism as given here:

Plagiarism is the process or practice of using another person's ideas or work and pretending that it is your own.

If it is shown that material has been plagiarised, or I have otherwise attempted to obtain an unfair advantage for myself by using work from unacknowledged sources and / or artificial intelligence software including (but not limited to) ChatGPT, I understand that this portfolio will be null and void and I will be required to complete a new registration training portfolio with replaced and new evidence.

I give my approval for my work to be checked by electronic means.

I confirm that the evidence included in this portfolio is my own work. The pieces of evidence demonstrate my professional competence, and that I meet the HCPC standards of proficiency for biomedical scientists.

6. LEARNING OUTCOMES FOR THE IBMS REGISTRATION TRAINING PORTFOLIO VERSION 5.0

Section 1: Professional Conduct

Section 1 – Module 1: Personal Responsibility and Development

By successfully completing this module, the candidate will be able to:

- Demonstrate transferable skills required for effective practice, including high standards of personal and professional conduct, personal responsibility, justifying their decisions and actions, and exercising appropriate personal initiative.
- Understand what is required of them by the Health and Care Professions Council, including their ability to apply legislation, policies and guidance relevant to biomedical scientists within their scope of practice.
- Justify the importance of continuing professional development throughout their career; be able to identify the limits of their practice, and know when to seek advice.

Section 1 – Module 2: Equality, Diversity and Inclusion

By successfully completing this module, the candidate will be able to:

- Apply equality legislation to their practice and understand how their own values, beliefs and personal biases (which may be unconscious) could impact on their practice.
- Acknowledge the rights, dignity and values of others and actively challenge barriers to inclusion in their practice.
- Take personal action to ensure colleagues, service users and carers are treated appropriately with respect and dignity.

Section 1 – Module 3: Communication

By successfully completing this module, the candidate will be able to:

- Communicate the outcomes of clinical laboratory investigations accurately and reliably to service users, carers, colleagues and others.
- Use information, communication and digital technologies competently in their practice.
- Demonstrate an ability to adapt their communication methods to ensure clear communication with a variety of audiences.

Section 1 – Module 4: Patient Records and Data Handling

By successfully completing this module, the candidate will be able to:

- Maintain confidentiality and comply with data governance requirements
- Manage and keep clear, accurate and detailed records in accordance with applicable legislation, protocols and guidelines.
- Adhere to specimen identification protocols, use systems for the accurate and correct

identification of laboratory specimens and recognise the importance of backup storage of electronic data.

Section 1 – Module 5: Professional Relationships

- By successfully completing this module, the candidate will be able to:
- Build and sustain professional relationships that enable autonomous and collaborative working, using a range of personal transferable skills.
- Actively participate in training that supports high standards of practice, professional conduct and positive interpersonal relationships.
- Recognise the qualities, behaviours and benefits of effective leadership and demonstrate leadership behaviours appropriate to their practice.

Section 2: Professional Practice

Section 2 – Module 1: Professional Knowledge

By successfully completing this module, the candidate will be able to:

- Understand in detail, the role of clinical specialisms in the diagnosis, treatment and management of disease: cellular science, blood science, infection science, molecular and genetic science and reproductive science.
- Apply their knowledge of the scientific principles underpinning clinical laboratory investigations used to investigate human diseases, disorders and dysfunction.
- Clearly articulate the causes of named disorders, including the molecular, cellular and / or genetic changes associated with disease progression.

Section 2 – Module 2: Health and Safety and Wellbeing

By successfully completing this module, the candidate will be able to:

- Identify hazards and mitigate risks by complying with local operational procedures, policies and relevant health and safety legislation.
- Establish safe environments for practice and apply principles of good laboratory practice to maintain the safety of themself and others.
- Recognise the potential impact of their own mental and physical health on their ability to practise safely and effectively, including how to seek help and support when necessary.

Section 2 – Module 3: Quality

By successfully completing this module, the candidate will be able to:

- Recognise the value of quality control, quality assurance and clinical governance to ensure continual improvement.
- Identify and respond appropriately to abnormal outcomes from quality indicators.
- Accurately and precisely perform calibration and quality control checks appropriate to their role.

Section 2 – Module 4: Performing Standard Investigations

By successfully completing this module, the candidate will be able to:

- Apply their knowledge and understanding of standard laboratory investigations to select, review and appraise appropriate techniques.
- Prepare, process, analyse and interpret clinical laboratory data and present the data in a suitable format.
- Conform with standard operating procedures when working with specific laboratory equipment and demonstrate relevant practical skills.

Section 2 – Module 5: Research and Development

By successfully completing this module, the candidate will be able to:

- Analyse qualitative and quantitative data and demonstrate a logical and systematic approach to problem solving.
- Critically evaluate research articles and other evidence to inform their own practice.
- Use current research in their discipline to generate hypotheses, design experiments and analyse novel data to develop their knowledge and expertise.

7. REGISTRATION TRAINING PORTFOLIO VERIFICATION PROCESS

General Points about Verification:

- An in-depth knowledge of a single discipline is not needed as the Registration Portfolio is generic.
- Rotation around all disciplines is not required but does provide a wider experience. Evidence of some departmental collaboration in respect of training does complement the biomedical science degree and is recommended by the IBMS, as it gives the student a more complete experience of the profession.
- The trainer should be satisfied that the candidate is able to demonstrate consistency in their achievement of competence.
- All pieces of evidence must be authenticated as originating from the candidate, accomplished through the use of module sign-off in your Onefile portfolio, which replaces traditional signatures and dates.
- Beyond the specified 30 pieces of evidence, the candidate should not provide any additional documentation.
- Evidence should be valid, authentic and linked to the standards of proficiency and competencies being evidenced.
- The candidate should be aware of good professional practise. For example, laboratory reports or patient data must be fully anonymised, and any hand-written annotation needs to belegible.
- It is important to see that a holistic approach to training has been taken (i.e. evidence to demonstrate that the candidate has integrated into the team working of the laboratory and that they attend meetings where appropriate).
- If some evidence does not demonstrate the standards of proficiency very well, there may be an opportunity on the laboratory tour to explore this in more depth and confirm that the required HCPC standards have beenmet.
- **Any evidence of plagiarism will result in failure.** The candidate will be required to complete a new portfolio of evidence and apply for a new Registration Training Portfolio.
- If the candidate plagiarises any evidence when completing their portfolio as part of an integrated degree award, they may also be subject to appropriate disciplinary action from their University, for example an academic misconduct hearing or a fitness to practise panel.

Arranging a Verification

Once the Registration Training Portfolio has been completed to a level where the Training Officer reasonably believes the candidate capable of a pass, the verification can be organised.

The named Training Officer must ensure that the portfolio has been completed fully and that all the standards of proficiency have been signed off against the pieces of evidence in the portfolio before applying for the verification visit.

The training officer is responsible for applying for a verification visit (unless the portfolio was issued by the university as part of an integrated degree, in which case the verification will be organised by the university). Applications from candidates cannot be considered.

To apply for the IBMS Registration Training Portfolio Version 5.0 verification, the Training Officer should submit an "Application for Verification" form to registration@ibms.org for individual sandwich students, or colleagues in practice. This will contain the candidate and training officer names and contact details. The Education Team will source a verifier from the IBMS pool of verifiers who will be given access to the Onefile digital portfolio. The Training Officer and verifier will then liaise by email to confirm the date of the verification.

For students from an integrated degree programme (integrated placement on a BSc Applied Biomedical Science programme), or apprentices completing a Level 6 degree apprenticeship programme, the university Placement Tutor or Programme Leader will coordinate the application for verification for the cohort. They will submit a summary spreadsheet containing the candidate, training officer and verifier names and contact details to registration@ibms.org This will allow the Education Team to permit each verifier access to the required Onefile digital portfolio. The Training Officer and verifier will then liaise by email to confirm the date of the verification.

As the standards of proficiency are generic to all disciplines, it is not necessary to appoint discipline-specific verifiers. This will not disadvantage either the verifier or the candidate, as an in-depth knowledge of the pathology discipline is not required (this is assessed at the end of Specialist Portfolio training), and the focus is on obtaining minimum standards applicable to the scope of practice of a biomedical scientist rather than the in-depth role of a specialist.

The verification will follow the format outlined below:

Informal Interview with Candidate and Training Officer (15–20 mins)

This is an opportunity for everyone to be put at ease. The verifier will ask questions that give them a feel for the routine work of the laboratory (DGH, teaching or specialist, such as National Blood Service) and the day-to-day workload. These questions are generated from a need for the IBMS to have an awareness of the environment in which the training is taking place, to meet the HCPC standards of education and training.

It is important that the candidate is encouraged to talk about their training experience and give their views on the training provided. A judgement is made of the quality of the training support to see if it was effective (i.e. Was it one to one? Was there one trainer, designated trainers, rotation and secondment if needed?). The verifier will discuss the production of the portfolio evidence with the candidate and the training officer, including whether there were any difficulties or issues.

Verifiers will also confirm there was inter-professional learning with other learners and that candidates can demonstrate what to do if they feel that they may have been discriminated against. The candidate will also be asked to confirm whether they felt there is effective support if they have concerns about the safety and well-being of service users that they wish to raise and how to ensure action has been taken in response to the concerns.

Portfolio Verification (maximum 90 mins)

The external verifier will complete their scrutiny of the portfolio evidence in Onefile. To do this, the verifier will require access to a PC or laptop connected to WiFi for a face-to-face verification or will have completed their portfolio review online prior to the on-site verification visit.

Alternatively, the portfolio review and the verification laboratory tour can both be completed entirely online using Onefile and a Teams meeting with the candidate and trainer.

The following documents will be made available to the external verifier using Onefile:

- Registration Portfolio Training Plan for the candidate.
- Completed portfolio containing the 30 pieces of evidence mapped to the HCPC Standards of Proficiency for biomedical scientists.
- Verification report paperwork (see page: 20)

Tour of Laboratory (40 mins)

The laboratory tour will typically take 40 minutes. The laboratory tour must be conducted by the verifier and the candidate **only**. The candidate may be asked to grant permission for an additional person to accompany the verifier on the tour for training and audit purposes only (their role should be as an observer and play no part in the decision-making process). The laboratory tour can be completed face to face during an in-person visit, or entirely online, as agreed between the trainer and verifier.

This part of the verification gives the candidate the opportunity to show their fitness to practise by demonstrating the knowledge and competence they have achieved during their training. An overview of facilities, equipment and the laboratory environment should be given, and they must be able to articulate their knowledge of the procedures and discuss laboratory scenarios. This is a proactive question-and-answer session where the verifier will ensure that the candidate has the threshold knowledge and skill required for the role of a biomedical scientist. It will also provide an opportunity for the verifier to probe any areas they feel may need further clarification following their review of the portfolio evidence.

An assessment of the training culture can also be made; for example, are there up-to-date notice boards for training? Does the laboratory have a positive attitude towards training? All of these help to build up a picture of the training experience.

For virtual verifications, the laboratory tour can be done using a PowerPoint presentation with the candidate explaining the images on the slides, or a virtual walk-through tour (the candidate and trainer should check the Wi-Fi signal is strong enough in the laboratory to support this type of tour in advance). The virtual laboratory tour should still be in interactive discussion and not just a pre-prepared slide presentation.

Meeting with Training Officer (15 mins)

This is an opportunity discuss any good practice identified in the training plan or innovative pieces of evidence used in the portfolio. The verifier can also raise any issues or concerns identified during the verification visit and make constructive suggestions for how these might be tackled going forwards. This is also an opportunity to discuss laboratory training in the laboratory in general, in the context of IBMS training approval.

If no issues have been identified, the verifier may choose to proceed directly to the next stage.

Feedback Comments to Trainer and Candidate (15 mins)

The verifier will communicate the outcome of the verification visit to the candidate and trainer and clarify the recommendation they will make to the IBMS in their report (ie if the candidate has passed or failed).

This is also an opportunity for the verifier to give constructive feedback. For example, the portfolio evidence or training strategy could be improved by encouraging candidates to spend a day in other laboratories, or by developing a collaborative and coordinated approach to training across the disciplines. Maximising the use of resources can avoid the same training being replicated unnecessarily to a number of pre-registration training candidates.

Possible outcomes of the verification:

Successful (pass)

- The candidate has demonstrated the minimum competence required across their portfolio evidence and the laboratory tour against each standard of proficiency.
- The verifier recommends that the candidate should be awarded the Institute Certificate of Competence.

Unsuccessful (fail)

- The candidate has not demonstrated the minimum competence for several standards of proficiency.
- The verifier will provide feedback and guidance regarding how the candidate can address the identified deficiencies.
- The verifier will determine whether submission of additional documentation will address the deficiencies, or a further full verification is required.
- The verifier will agree a reasonable deadline to provide any updated evidence (if appropriate) with the candidate and training officer.
- If a full verification is required, the verifier will inform the Education Team to note this decision and the training officer will liaise with the Education Team via the registration@ibms.org inbox to organise a verification when the candidate has updated their evidence for the portfolio as advised by the verifier.

Post-verification documentation to be completed via Onefile:

External Verifier's Report

- The verification report is completed by the verifier **within one week of the visit.**
- A copy of the verification report must be uploaded to Onefile for the training officer/ training manager to access.
- The report should be completed in detail and indicate examples of good practice and areas which could be improved, comments on the range of evidence and summary topics covered in the laboratorytour.
- Reports which merely confirm the standards were met (though use of check boxes or inadequate comments) will be returned to the verifier for further detail.

Please do not just list the types of evidence submitted. Short descriptive sentences which include the type of evidence, whether it met the standards and if so, how, are required for the IBMS to document what was presented. For example '*a short reflective statement detailing the candidate's role in investigating an incident. This statement clearly described the incident itself and what role the candidate played in the investigation. The reflection was detailed and the candidate was able to demonstrate what they had taken from it. There was clear evidence that they met the required HCPC standards mapped to this piece of evidence.'*

Laboratory Feedback Report

- The laboratory feedback report must be completed by the training officer/manager **within one week of the visit.**
- This report must be uploaded to Onefile and will be available for the external verifier to view.
- The laboratory feedback report provides an opportunity to communicate the training officer and the candidate's experience of the verification process.
- It also provides feedback on the performance of the verifier.
- Completion of this form is a mandatory requirement for continued approval of the laboratory for training and enables the IBMS to audit all aspects of the verification process to maintain consistency and parity of verifiers on a national level. It is designed to be constructive.

While the expectation is that minor concerns are documented in this form, the IBMS appreciates that it may not be appropriate to mention some more serious concerns in this way. In such circumstances, the external verifier or training officer should contact the IBMS Education Team directly using the registration@ibms.org inbox to discuss the issue/s.

Certificate of Competence

Only when both the verifier's report and laboratory feedback form have been uploaded to Onefile and logged (in addition to the completion of an appropriate IBMS accredited BSc programme) will the IBMS Education Team be able to process the Certificate of Competence and pass the candidate's details to the HCPC.

Please note: if the verification was completed prior to completion of an accredited degree (i.e. sandwich placement or an integrated placement / apprenticeship) the candidate will not receive their Certificate of Competence until they (or their University liaison person) have provided a copy of their degree certificate (or transcript) to the IBMS Education Team via registration@ibms.org following the final exam board.

The candidate will receive an email letting them know that their details have been passed to the HCPC and that they can begin the application process to join the register.

Please note: It is important that the candidate keeps their contact details up to date with the IBMS to ensure they receive this information.

8. FREQUENTLY ASKED QUESTIONS

About Training

Q. – What pieces of evidence are required in the Registration Training Portfolio?

A. The portfolio is split into 2 sections that contain 5 modules each. Each module contains 3 pieces of evidence, giving 30 pieces of evidence in total across the portfolio.

Each module contains one piece of mandatory evidence as described in Appendix 2 of this Guidance document. This piece of evidence must be completed as the type described to meet the indicated HCPC standards of proficiency.

The remaining 2 pieces of evidence per module are a free choice to be agreed by the candidate and trainer but must adequately demonstrate the remaining HCPC standards of proficiency mapped to each module. Producing a variety of evidence types across the modules is expected and demonstrates good practice. Examples of evidence types that could be used across the portfolio can be found in Appendix 3.

Q. Does the candidate need to be in a trainee position?

A. The IBMS Registration Training Portfolio provides the framework for education and professional training by which those seeking to become registered biomedical scientists can demonstrate their fitness to practise. This is achieved by evidencing that all the HCPC standards of proficiency for biomedical scientists have been met. The term "candidate" is used to refer to the individuals undertaking the pre-registration training required to successfully complete the portfolio. The candidate does not need to be in a funded trainee biomedical scientist post but must have a structured training plan and the time and ability to complete the training required to produce evidence to demonstrate they meet all the HCPC standards of proficiency.

Q. Can someone who has completed a non-accredited degree and is employed as support staff complete the portfolio?

A. Yes, provided they follow a structured training plan in an IBMS approved training laboratory that enables them to meet the HCPC standards of proficiency required for registration as a biomedical scientist. In this case, the employee would need to submit their completed qualifications for an IBMS degree assessment to identify areas of supplementary education they will be required to undertake to reach equivalence to an IBMS accredited BSc programme. More information can be found here:

https://www.ibms.org/registration/degree-assessment-for-hcpc-registration/

The IBMS registration training portfolio evidence is only valid for a period of 3 years prior to verification, so it would be useful to identify what supplementary education ("top-up" modules) are required and how long this is likely to take to complete the necessary modules prior to applying for a registration training portfolio.

Q. Can training take place in special reference laboratories?

A. Candidates can train in any biomedical science service laboratory that holds IBMS training approval if they can evidence knowledge and practical competences relevant to all HCPC standards of proficiency for biomedical scientists. If candidates need to be seconded to another laboratory for particular aspects of their training, formal arrangements must be in place and detailed in their training plan.

Q. I have started the previous version of the Registration Training Portfolio (Version 4.3). What do I do?

A. Following the release of the new Registration Training Portfolio Version 5.0 from 1st September 2023, the previous version (Version 4.3) will have a 3 year shelf life. If you are unable to complete your Registration Training Portfolio by this time (end of August 2026) you will need to purchase the new portfolio (Version 5.0) at that point.

All portfolios issued after 1st September 2023 will be the Version 5.0 digital portfolio hosted on Onefile.

Q. Can the portfolio be completed in more than one laboratory? I have moved jobs halfway through my portfolio.

A. A candidate can transfer to another IBMS approved training laboratory while completing the IBMS Registration Training Portfolio. However, the laboratory which applies for the verification is responsible for ensuring that the candidate has achieved all the standards of proficiency and has completed the required evidence to the appropriate standard. The new laboratory may wish to request that certain pieces of evidence are re-done and countersign any relevant sections of the portfolio already completed prior to submission of the portfolio for verification.

Q. How long do I have to complete the Registration Training Portfolio Version 5.0?

A. There is currently no time limit for completing Version 5.0. If you require longer than 3 years, your evidence is expected to be updated or produced within three years of the verification date.

Q. How long do you expect completion of the Registration Training Portfolio to take?

A. It is expected that the Registration Training Portfolio will normally take the equivalent of 9-12 months to complete, depending on the experience of the candidate and whether they are completing it as part of sandwich placement, an integrated degree or while employed in a support grade, rather than a full-time trainee or associate practitioner position.

Q. Can the portfolio be transferred to another candidate?

A. No, the portfolio is not transferable to another candidate.

Q. Who signs off the competencies?

A. The internal training officer/facilitator/coordinator is responsible for ensuring that training is structured and provided in accordance with departmental training policies and training plan, and at an appropriate level. Other colleagues may sign off certain pieces of evidence if appropriate, for example the sample reception manager, training manager, or other biomedical scientists and clinical scientists in the laboratory who have mentored the candidate to complete a piece of evidence. The named training officer should be satisfied that any delegated training responsibility is carried out properly and in accordance with safe, effective practice and to the level expected of a threshold level biomedical scientist.

The training officer will complete the final sign-off of the portfolio of evidence on Onefile prior to the request for verification.

About Evidence

Q. Is it only the training officer who can sign off evidence in the portfolio?

A. No, it should be the most appropriate person. The training officer is responsible for ensuring that whoever is carrying out the training fully understands the level and requirements expected from that candidate. When the Onefile portfolio is applied for, a list of 'key' of signatories (name and email address) should be included for any colleagues who will be signing off pieces of evidence. This means that the additional colleagues can be added to the Onefile digital portfolio to view the evidence and sign off the relevant piece of evidence. The verifier can check that the most appropriate person has conducted the training and signed the candidate off.

The final sign-off to confirm that the portfolio of evidence on Onefile is complete will be the named training officer in the original application for the Registration Training Portfolio. If this person changes during the portfolio completion, you will need to notify the Education Team using the registration@ibms.org inbox.

Q. As each piece of evidence should map to defined HCPC SoPs, how big should a single piece of evidence be?

A. Both the candidate and trainer should be thinking 'quality rather than quantity'. Each piece of evidence should be valuable and relevant to the HCPC SoPs it is mapped to but also concise. It is an important skill as a scientist to be able to explain complex information in a clear and concise manner to a variety of audiences. All candidates will have completed a BSc degree programme and should be proficient in creating a variety of materials for assessment including laboratory reports, posters, presentations, case studies, data analysis and scientific pieces of writing.

Long written pieces of evidence do not necessarily show good knowledge and understanding, just the candidate's ability to find information and format it into a single written piece of evidence. For any single written piece of evidence that is included, it is recommended that a maximum word count of 1500-2000 words should be used (excluding the reference list, or hyperlinks may be used for the references within the text). This will ensure that the candidate focusses on the main points they wish to communicate. The candidate will also be able to practice their ability to "filter" the important information they wish to include in the final version of their written piece of evidence as they work through and reduce the word count in drafts with their trainer.

Examples of evidence types per module of the Registration Training Portfolio are given in Appendix 3. For Section 2 Module 5 (Research and Development) the candidate should not include their research project from the final year of their degree programme in its entirety as the mandatory piece of evidence. They should include a short, written report on a workplace-based activity or project (or summarise their final year university research project) to include statistical analysis, data interpretation and evaluation of the study design.

Q. Should the candidate include essay style evidence?

A: Rather than including long written pieces of work as evidence, the candidate should focus on pieces of evidence that are clearly linked to their own experience and practice. Short reviews or executive summaries of information they have read, or the use of diagrams or flow charts of work they have completed could be good examples of evidence. Alternatively, a reflection on what they learned from a presentation or training course they have attended and how they will apply this to their practice is better

than including just the slides or certificate of attendance as evidence. The candidate should reflect on how they will incorporate what they have learned into their practice and / or use the activity summarised in the piece of evidence to address a gap in their skills or knowledge to enhance their laboratory-based practice.

If a piece of evidence includes published material (scientific information from journal articles or textbooks, images or information from laboratory SOPs, manufacturer instructions or diagrams) that is not the candidate's, the sources should be clearly referenced using in text citations and a reference list at the end of the piece of work (or hyperlinks to the primary source of information).

Pieces of evidence that include original photographs, data or images that are annotated, structured questions and answers, or case studies are not subject to the 1500-2000 word count, but should again be clear, concise and demonstrate the appropriate HCPC standards of proficiency.

Q. Should the candidate include witness statements as evidence?

A: Witness statements are not good examples of evidence. The 30 pieces of evidence should be selected by the candidate as the best evidence to show how they have demonstrated they meet the HCPC standards of proficiency. A witness statement that simply states someone else has watched the candidate complete the task does not ensure the candidate's understanding of the HCPC standards of proficiency has been demonstrated.

A better piece of evidence would be a summary of a discussion with the person who observed the task being completed that includes feedback on what the candidate did well, some reflection on how they might improve next time. The following questions may be useful prompts for this reflection:

What learning or competency development did the candidate undertake?

What did the candidate learn or achieve through this activity?

How has the candidate applied (or will they apply) this learning to their day-to-day practice?

How could this developmental task change the candidate's practice to benefit the training laboratory or service user?

Q. Is reflection required anywhere in the portfolio?

A. Yes, the expectation is that the candidates will reflect on their skill development, competencies and future improvements in all their pieces of evidence. There should be evidence of reflection in the justification used for each piece of evidence throughout the portfolio, ie why the piece of evidence was chosen and how it clearly demonstrates the HCPC SoPs it has been mapped to. Self-reflection is a skill that candidates should master early in their career.

Section 1 Module 5 (Professional Relationships) Mandatory Evidence 1 is a reflective statement that describes how the candidate's engagement with service users and colleagues has positively contributed to their professional development and maps to HCPC SoPs 8.1, 8.12 and 8.13. Opportunities for candidates to demonstrate self-reflection might include a single reflection on going on a ward round, maybe working with point of care testing and talking about what they learned and how this contributed to their development, or it could be a reflective statement that talks about multiple examples of how the candidate's interactions with service users have improved their development. The candidate could include answering patient queries and clinicians' queries and reflect on how this has improved their communication. Speaking to clinicians using biomedical terminology but also being able to talk to patients

(where applicable, e.g. instructions on collecting urine samples) show the candidate's ability to communicate with different people and use different language to communicate most effectively.

The candidate can discuss how service users adding on tests and querying sample requirements has improved their awareness of the tests the lab does, what tests are done by other departments, what specimen requirements are for tests they don't do very often (this could be a reflection on a mixture of specific and general tests). Finally, the candidate might have had to give results which helped their awareness of reference ranges or might have queried results with clinicians or discussed staining. All these activities involve interactions with service users outside of pathology and all contribute to the candidate's professional development.

About Verification

Q. Should the portfolio be shared with the external verifier before the laboratory visit?

A. Yes, the verifier will be added to the candidate's digital portfolio hosted on Onefile once they have been assigned by the Education Team. The verifier and Training Officer will correspond by email to agree a date for the portfolio verification and if it will take place as a fully face to face visit, a hybrid verification, or completely online verification.

For a completely face to face verification, the verifier will require access to a laptop or PC at the training laboratory venue that has Wi-Fi or internet connection to access the candidate's completed Registration Training Portfolio on Onefile on the agreed date of the verification visit. They will review the digital portfolio, then complete the laboratory tour in person in the training laboratory with the candidate. The verifier feedback to the candidate and Training Officer will also be given face to face, including the outcome of the verification before the verifier leaves.

For a hybrid verification, the verifier will be given access to the candidate's completed Registration Training Portfolio and review the pieces of evidence using Onefile in advance of the agreed verification date. The verifier will then visit the training laboratory to complete the laboratory tour in person with the candidate on the agreed date. The feedback to the candidate and Training Officer will also be given face to face, including the outcome of the verification before the verifier leaves.

For a completely virtual or online verification, the verifier will be given access to the candidate's completed Registration Training Portfolio and review the pieces of evidence using Onefile in advance of the agreed verification date. They will then complete the laboratory tour and discussion with the candidate online using Teams or Zoom. The feedback to the candidate and Training Officer will also be given through online meetings, including the outcome of the verification before the end of the meeting.

Q. Are there any changes to the verification questions following the implementation of the Version 5.0 Registration Training Portfolio?

A. The initial verification questions remain in place to encourage candidates to describe what they know about the support in place for them and who to raise issues with. How candidates have learnt with and from other professionals is also included, as this forms an important part of the HCPC standards of education and training. The verifier's report form contains prompts for these questions so verifiers should work from this to break the ice at the start of the verification process.

The mandatory pieces of evidence in the Version 5.0 Registration Training Portfolio have now been expanded so that one mandatory piece of evidence is included in each module. The verifier will be asked to ensure that these mandatory pieces of evidence have been completed in accordance with the description and

map to the expected HCPC standards of proficiency.

The verifier will also look at the portfolio holistically and review the range of evidence and variety of evidence types provided across all modules. They will ensure that the 30 pieces of evidence presented in the portfolio map to all HCPC standards of proficiency for biomedical scientists.

Q. There may be different types of evidence. How does the verifier know which are acceptable?

A. This involves applying professional judgement. Each piece of evidence must be relevant to the HCPC standards of proficiency it is mapped to and be authentic, showing that the candidate has met the standards in question. The rationale for the inclusion of each piece of evidence is supported by the justification for choosing the evidence presented.

The mandatory piece of evidence for each module is clearly explained in Appendix 2 of this Guidance document. We do not wish to stifle innovation, so we do not stipulate evidence types for evidence 2 and 3 for each module of the Registration Training Portfolio and the generic nature of the HCPC standards of proficiency permits different types of evidence to be acceptable.

Q. How can one be sure about the validity of the evidence?

A. Evidence is produced as part of the training process so a qualified individual will have had responsibility for assessing the piece of evidence prior to its inclusion in the portfolio. The candidate should sign and date the work and has completed a plagiarism statement within the Onefile portfolio that states all work included is their own.

There should be evidence of marking and constructive feedback from the trainer that underpins iterative improvements in each piece of evidence.

Finally, the training officer/university tutor will have signed off the evidence and confirmed the HCPC standards of proficiency that have been demonstrated, as part of their professional responsibilities.

Q. Can verifiers clarify that all HCPC standards of proficiency have been met via the portfolio evidence and the laboratory tour?

A. If the verifier feels that some of the HCPC standards of proficiency have not been adequately demonstrated in the 30 pieces of evidence in the submitted Registration Training Portfolio, it may be possible for the verifier to ask targeted questions to obtain further information during the laboratory tour. The duration of the tour allows the verifier adequate time to ensure the candidate does meet the threshold standards to become registered as a biomedical scientist.

If the verifier does not feel that after reviewing the portfolio evidence and conducting the laboratory tour that the candidate has met the threshold standards, they may advise that some pieces of evidence need to be updated and resubmitted for them to review. Once they are satisfied that all standards of proficiency have been met, the verifier will be able to confirm that the candidate has passed their verification.

If there are several areas of concern and / or the verifier feels that the portfolio evidence has serious deficiencies that do not demonstrate the candidate has met all HCPC standards of proficiency, they may choose to postpone the verification visit. In this case, a new verification date will be agreed with the Training Officer and candidate that will give the candidate adequate time to update and replace their pieces of evidence to an appropriate standard and the verifier adequate time to complete a second review of the portfolio evidence prior to the postponed verification.

9. Appendix: 1

		Section 1 – Professional Conduct					Section 2 – Professional Practice				
○ = Knowledge ● = Competence At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Practise safely within their scope of practice	1.1	●									
	1.2									●	
	1.3	●									
Practise within the legal and ethical boundaries of their profession	2.1	●									
	2.2	●									
	2.3		○								
	2.4	○									
	2.5		●								
	2.6		●								
	2.7			○							
	2.8	○									
	2.9	○									
	2.10	○									
	2.11		●								
	2.12	●									
Look after their health and wellbeing, seeking appropriate support where necessary	3.1							●			
	3.2							○			
	3.3							○			
	3.4							●			
Practise as an autonomous professional, exercising their own professional judgement	4.1	●									
	4.2									●	
	4.3									●	
	4.4									●	
	4.5	●									
	4.6										●
	4.7										●
	4.8					○					
Recognise the impact of culture, equality and diversity on practice and practise in a non-discriminatory and inclusive manner	5.1		●								
	5.2		○								
	5.3		●								
	5.4		○								
	5.5		●								
	5.6		●								
	5.7		●								
Understand the importance of and maintain confidentiality	6.1				●						
	6.2				○						
	6.3				●						
	6.4				○						
	6.5				●						

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o = Knowledge
• = Competence

At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Section 1 – Professional Conduct					Section 2 – Professional Practice				
		Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Communicate effectively	7.1			•							
	7.2			•							
	7.3			o							
	7.4		•								
	7.5			•							
	7.6			o							
	7.7			•							
	7.8			o							
	7.9			•							
Work appropriately with others	8.1					•					
	8.2					o					
	8.3					o					
	8.4					•					
	8.5					•					
	8.6					o					
	8.7					o					
	8.8		•								
	8.9					•					
	8.10					•					
	8.11					•					
	8.12					o					
	8.13					•					
Maintain records appropriately	9.1				•						
	9.2				•						
	9.3				•						
	9.4				•						
	9.5				•						
	9.6				o						
	9.7				o						
Reflect on and review practice	10.1	o									
	10.2					•					
Assure the quality of their practice	11.1								o		
	11.2								•		
	11.3								•		
	11.4								•		
	11.5								•		
	11.6								•		
	11.7								o		
	11.8								o		

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At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Section 1 – Professional Conduct					Section 2 – Professional Practice				
		Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Understand and apply the key concepts of the knowledge base relevant to their profession	12.1						○				
	12.2										●
	12.3					●					
	12.4					○					
	12.5									○	
	12.6						●				
	12.7						○				
	12.8									●	
	12.9									○	
	12.10							○			
Draw on appropriate knowledge and skills to inform practice	13.1										●
	13.2									●	
	13.3									●	
	13.4									●	
	13.5									●	
	13.6									●	
	13.7									●	
	13.8										○
	13.9										○
	13.10										●
	13.11										●
	13.12									●	
	13.13									●	
	13.14									●	
	13.15									●	
	13.16									●	
	13.17									●	
	13.18									●	
	13.19								●		
	13.20								●		
	13.21									●	
	13.22									○	
	13.23									○	
	13.24								●		
	13.25									●	
	13.26									●	
	13.27						●				
	13.28									●	
	13.29										○
	13.30										○
	13.31									●	

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At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Section 1 – Professional Conduct					Section 2 – Professional Practice				
		Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Establish and maintain a safe practice environment	14.1							o			
	14.2							•			
	14.3							•			
	14.4							•			
	14.5							•			
	14.6							o			
Promote health and prevent ill health	15.1							o			
	15.2							o			
	15.3							•			
	15.4							o			

10. Appendix: 2

Section 1 – Professional Conduct	HCPC SoPs Demonstrated	Example Justification
Module 1 - Personal Responsibility and Development		
Mandatory Evidence 1 - Personal statement that demonstrates your understanding of the limits of your practice and how you act accordingly.	SoPs 4.1, 4.5 and 10.1	This evidence demonstrates my ability to operate laboratory equipment, troubleshoot (where it is within my ability to do so) and to seek assistance when it is not. It also demonstrates my ability to reflect and learn from my own actions and those of others.
Evidence 2 and 3 – candidate and Training Officer choices.	SoPs 1.1, 1.3, 2.1, 2.2, 2.4, 2.8, 2.9, 2.10 and 2.12	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 2 – Equality, Diversity and Inclusion		
Mandatory Evidence 1 – Using specific examples, demonstrate how you apply the principles of equality, diversity and inclusion in your practice.	SoPs 5.1, 5.2, 5.3 and 5.7	This evidence demonstrates my knowledge of equality legislation in the UK and how this applies to me and my practice. It demonstrates my ability respond to different groups, to recognise my own biases and ensure they do not negatively impact my practice
Evidence 2 and 3 – candidate and Training Officer choices.	SoPs 2.3, 2.5, 2.6, 2.11, 5.4 5.5, 5.6, 7.4 and 8.8	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 3 – Communication		
Mandatory Evidence 1 – Explain the different methods you use to communicate effectively within your department and with service users.	SoPs 7.7, 7.8 and 7.9	This [insert evidence type] demonstrates the range of communication methods I use within my laboratory and with other service users. It evidences how I have successfully communicated with colleagues and service users, as well as my understanding of the importance in providing accurate information in a timely manner.
Evidence 2 and 3 – candidate and Training Officer choices.	SoPs 2.7, 7.1, 7.2, 7.3, 7.5 and 7.6	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 4 – Patient Records and Data Handling		
Mandatory Evidence 1 – Review a specific sample pathway, from receipt to result, explaining the importance of consent and confidentiality.	SoPs 6.2, 6.5 and 9.3, plus 6.1 (partially)	This [insert evidence type] demonstrates my knowledge of confidentiality principles and consent relevant to my work. It demonstrates my application of these principles and my responsibility for ensuring information is stored and maintained appropriately from the point of sample entry into the lab to when results are released.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 6.3, 6.4, 6.5 9.1, 9.2, 9.4, 9.5, 9.6 and 9.7	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 5 – Professional Relationships		
Mandatory Evidence 1 – Reflective Statement describing how your engagement with service users and colleagues has positively contributed to your professional development.	SoPs 8.1, 8.12 and 8.13	This reflection demonstrates that I understand how my interactions with a variety of service users has helped my personal development, improved my practice and impacted on patient care.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 4.8, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 8.10, 8.11, 10.2, 12.3 and 12.4	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio

APPENDIX 2: IBMS Registration Training Portfolio Version 5.0 Mandatory Evidence

Section 2 – Professional Practice	HCPC SoP's Demonstrated	Example Justification
Module 1 - Professional Knowledge		
Mandatory Evidence 1 – Case study based on a test that your laboratory performs, showing your understanding of normal physiology and disease progression for a specific disorder associated with this test.	SoPs 12.1 and 13.27	This evidence demonstrates my theoretical knowledge and understanding of normal physiology and disease progression. It shows how I apply my theoretical knowledge in my practice to assist in the diagnosis of [insert disease] using [specific test]. This evidence also shows my awareness of follow up tests in other disciplines and potential treatment plans.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 12.6 and 12.7	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 2 – Health and Safety and Wellbeing		
Mandatory Evidence 1 – Produce an example risk assessment that demonstrates how you work in accordance with health and safety legislation, including appropriate use of PPE, hazard controls and risk management strategies.	SoPs 14.2 (partially), 14.3 and 14.4	This risk assessment demonstrates my awareness of health and safety legislation and how it relates to my laboratory. It shows how I apply appropriate health and safety procedures to work safely, identify issues and minimise risks.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 3.1, 3.2, 3.3, 3.4, 12.10, 14.1, 14.5, 14.6, 15.1, 15.2, 15.3 and 15.4	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 3 – Quality		
Mandatory Evidence 1 - Participate in a scheduled quality audit in your laboratory and review the audit outcomes to identify any impact on service and potential improvements.	SoPs 11.1, 11.4 and 11.6	This evidence demonstrates my participation in [insert activity] to improve laboratory quality management. I collected and assessed information about [insert here] to establish if there were issues to address. This audit demonstrates my understanding of how quality issues are tracked and managed, and why this is important.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 11.2, 11.3, 11.5, 11.7, 11.8, 13.19, 13.20 and 13.24	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 4 – Performing Standard Investigations		
Mandatory Evidence 1 - Personal statement that demonstrates your experience of performing standard investigations, including your analysis of the data produced and evaluation of the decisions and/or referrals made.	SoPs 4.2, 4.3, 4.4, 12.8, 13.2, 13.3, 13.4 and 13.5	This personal statement demonstrates my ability to perform [specific standard investigation example] using standard analytical procedures, to select and run appropriate tests and ensure that equipment is fit for purpose prior to analysis. This evidence shows that I can identify when quality control or sample results require further investigation and can perform these as necessary.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 1.2, 12.5, 12.9, 13.6, 13.7, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.21, 13.22, 13.23, 13.25, 13.26, 13.28 and 13.31	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio
Module 5 – Research and Development		
Mandatory Evidence 1 – Written report on a workplace-based activity (or summary of final year university research project) that includes statistical analysis, data interpretation and evaluation of the study design.	SoPs 13.9, 13.29 and 13.30	This [workplace-based activity OR summary of my final year project] demonstrates my ability to design and set up experiments relevant to biomedical science, interpretate data and perform statistical analysis to support my findings. This summary report also shows that I understand the importance of translating research into practice by my evaluation of the study design and data produced.
Evidence 2 and 3 – candidate and Training Officer choices	SoPs 4.6, 4.7, 12.2, 13.1, 13.8, 13.10 and 13.11	Candidate to add a suitable justification for both evidence 2 and 3 in their digital portfolio

11. Appendix: 3

This appendix provides further information on the **mandatory piece of evidence** for each module of the Registration Training Portfolio Version 5.0, including a brief description and the HCPC standards of proficiency each mandatory piece of evidence demonstrates. This piece of evidence must be completed as described.

This appendix also provides some **suggested examples** that may be used for evidence 2 and 3 per module, that will demonstrate the remaining HCPC standards of proficiency mapped to each module. Evidence 2 and 3 are not defined tasks that must be completed, but ideas of training activities that will cover several relevant SoPs at once. You can use some alternative types of evidence for evidence 2 and 3 per module from your existing training plans, provided they clearly demonstrate the listed HCPC SoPs for each module, as shown below.

Section 1: Professional Conduct

Module 1: Personal Responsibility and Development

Mandatory Evidence 1 - Personal statement that demonstrates your understanding of the limits of your practice and how you act accordingly.

This piece of evidence is a personal statement where you describe how you have been supervised, trained and mentored to undertake specified tasks in the laboratory. The statement should include reflection on the types of activities you can undertake autonomously following a period of training, what training was required and how you know that you are working to the required standard. It should include a description of a situation during your training when you felt that your personal limit of practice might be exceeded, how you sought advice and resolved the issue to inform your practice going forwards.

This mandatory piece of evidence maps to SoPs 4.1, 4.5 and 10.1:

4.1 recognise that they are personally responsible for and must be able to justify their decisions and actions

4.5 exercise personal initiative

10.1 understand the value of reflective practice and the need to record the outcome of such reflection to support continuous improvement

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 1.1, 1.3, 2.1, 2.2, 2.4, 2.8, 2.9, 2.10 and 2.12:

1.1 identify the limits of their practice and when to seek advice or refer to another professional or service

1.3 keep their skills and knowledge up to date and understand the importance of continuing

professional development throughout their career

2.1 maintain high standards of personal and professional conduct

2.2 promote and protect the service user's interests at all times

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

2.8 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

2.12 demonstrate awareness of the British, European and International Standards that govern and affect pathology laboratory practice

One of the following types of evidence could be considered to include:

- Describe, with reference to legal and professional requirements, how your training laboratory stores and disposes of human samples. This could be a diagram, table or flowchart that includes annotation or description of the legislation and how it is applied in your laboratory.
- Create a summary document that explains the role of the Health and Care Professions Council and what is required to be a registered biomedical scientist.
- Provide a record (a written summary or answer some structured questions) of how you effectively demonstrate the behaviours detailed in the IBMS *Guide to Good Professional Practice and Code of Conduct*.
- Show how you take responsibility for self-directed learning (e.g. reflective learning sheet, or a summary of your CPD activities). The examples of CPD should include reflection (annotation or comments) on how and why the activity has informed your laboratory practice.

Module 2: Equality, Diversity and Inclusion (EDI)

Mandatory Evidence 1 - Using specific examples, demonstrate how you apply the principles of equality, diversity and inclusion in your practice.

This piece of evidence could be a description of a situation that happened in your training laboratory and what you learned about equality (or equity), diversity and inclusion from it. It could be a summary of some EDI training you have undertaken to increase your knowledge and understanding, including a reflection on how you then applied what you learned in your practice. Alternatively, it could be a description of the protected characteristics defined in the Equality Act 2010, including an explanation of how you treat all colleagues with dignity and respect, demonstrating your commitment to EDI principles.

This mandatory piece of evidence maps to SoPs 5.1, 5.2, 5.3 and 5.7:

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 characteristics, intersectional experiences and cultural differences

5.2 understand equality legislation and apply it to their practice (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

5.7 recognise that regard to equality, diversity and inclusion needs to be embedded in the application of all HCPC standards, across all areas of practice

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 2.3, 2.5, 2.6, 2.11, 5.4, 5.5, 5.6, 7.4 and 8.8:

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

2.5 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

2.11 recognise the power imbalance which comes with being a health care professional, and ensure they do not abuse this for personal gain

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

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

8.8 identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion

One of the following types of evidence could be considered to include:

- Produce a personal statement, through discussion with colleagues, t h a t describes how you demonstrate your commitment to EDI and awareness of diversity in your own professional behaviour.
- With reference to the HCPC Code of Conduct, Performance and Ethics, explain how mutual respect and trust of colleagues in your training laboratory helps you to maintain high standards in your practice.

- Create a case study to demonstrate how you tackle barriers to inclusion, model positive behaviours and recognise what reasonable adjustments may be appropriate in the workplace.
- Produce a diagram / flow chart / poster / leaflet for service users and / or carers that describes why it is important to know about protected characteristics and how these are respected during sample analysis.

Module 3: Communication

Mandatory Evidence 1 - Explain the different methods you use to communicate effectively within your department and with service users.

This evidence could be a flow chart / table / spider diagram or other image that includes different communication types and a description of who you employ the communication method with. This might include oral communication, written communication, non-verbal communication, the use of IT (emails or sending results) and the telephone. The evidence should include notes / annotation on how and why you choose the communication method, how you know these methods are effective, how you adapt your communication depending on the person you are interacting with, and how you have improved your communication during training in response to feedback.

This mandatory piece of evidence maps to SoPs 7.7, 7.8 and 7.9:

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

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 2.7, 7.1, 7.2, 7.3, 7.5 and 7.6:

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

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)

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

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

One of the following types of evidence could be considered to include:

- Provide a reflective summary of your interpersonal skills (a short video, vlog, or blog) and how you have adapted these to actively try to remove barriers to communication with different people.
- Record a workplace discussion (a written summary or create a diagram such as a feedback loop) with your Training Officer or another colleague that demonstrates how you ensure that information is given accurately and is understood by the recipient.
- Compare and contrast how information is communicated within your training laboratory (ie between scientists) and how and why this is adapted when communicated to service users, carers, and external colleagues.
- Give an example of how a questionnaire could be used to inform service delivery, including how you would ensure the questionnaire was accessible and correctly interpreted by a variety of service users.

Module 4: Patient Records and Data Handling

Mandatory Evidence 1 - Review a specific sample pathway, from receipt to result, explaining the importance of consent and confidentiality.

This piece of evidence should relate to the clinical laboratory environment where you are completing your training. The sample pathway must be clearly described but the piece of evidence can take the form of a written piece, a diagram, flowchart, images of (anonymised) samples or video / animation). How and when consent is given and maintaining confidentiality must also be included in the evidence.

This mandatory piece of evidence maps to SoPs 6.2, 6.5 and 9.3, plus 6.1 (partially):

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

6.5 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

9.3 use digital record keeping tools, where required

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 6.3, 6.4, 6.5, 9.1, 9.2, 9.4, 9.5, 9.6 and 9.7:

6.1 adhere to the professional duty of confidentiality and understand when disclosure may be required

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

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

9.4 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

One of the following types of evidence could be considered to include:

- Ask your Training Officer or a colleague to undertake and record a direct observation of practice (DOP) to review your ability to use a basic laboratory information management system (LIMS) in accordance with standard operating procedures to access and input data.
- Using an example from specimen reception, demonstrate why minimum patient identification criteria is important and how the protocols used for inadequately or incorrectly labelled samples allow issues to be corrected.
- Explain record keeping systems in your laboratory, including how these systems ensure continuity, confidentiality and appropriate access to the records, whilst complying with data protection legislation.
- Produce an infographic that demonstrates how pre-analytical errors (eg insufficient specimen being received, or the sample/specimen has not been received in the correct preservative/fixative/container) impact the validity of the sample analysis and / or result.

APPENDIX 3: Examples of Evidence of Achievement

Module 5: Professional Relationships

Mandatory Evidence 1- Reflective Statement describing how your engagement with service users and colleagues has positively contributed to your professional development.

This piece of evidence provides an opportunity for self-reflection that might include a single reflection on going on a ward round, maybe working with point of care testing and talking about what you have learned and how this contributed to your development, or it could be a reflective statement that talks about multiple examples of how your interactions with service users have improved your development.

You could write a statement to explain how you answer patient queries and clinicians' queries and reflect on how this has improved your professional communication. Speaking to clinicians using biomedical terminology but also being able to talk to patients (where applicable, e.g. instructions on collecting urine samples) will demonstrate how you interact with different people and use different language to communicate most effectively and foster positive professional relationships.

This mandatory piece of evidence maps to SoPs 8.1, 8.12 and 8.13:

8.1 work in partnership with service users, carers, colleagues and 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

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 4.8, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 8.10, 8.11, 10.2, 12.3 and 12.4:

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

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

8.9 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

10.2 recognise the value of multi-disciplinary reviews, case conferences and other methods of review

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

One of the following types of evidence could be considered to include:

- Explain how you have expanded your knowledge and understanding of the tests carried out by other departments and how your treatment of a sample might impact later analysis by other colleagues (eg vacutainer order of draw for blood).
- Describe how your interactions with clinical colleagues has informed your own practice and reflect on the importance of multi-disciplinary teams in the patient care pathway.
- List the areas of the laboratory where you have worked, giving a brief description of the different professional relationships you have formed, including the role(s) these staff (other than biomedical scientists) have in service delivery.
- Identify a specific leadership role in your laboratory and explain what skills are needed to be effective in that role. Reflect on how you already demonstrate some of these leadership skills and how you will learn from others to develop them further.

Section 2: Professional Practice

Module 1: Professional Knowledge

Mandatory Evidence 1 - Case study based on a test that your laboratory performs, showing your understanding of normal physiology and disease progression for a specific disorder associated with this test.

This piece of evidence will be based on the theoretical knowledge and understanding you have developed through your degree (and any supplementary education you have completed in the clinical specialisms). The case study should include detailed information on the causes of the disorder you have chosen and link the tests performed in your laboratory to identify the changes from the normal physiological state to the diseased state. You should describe the tests / analysis performed to investigate, identify and monitor the disorder in the laboratory, using example results and commenting on their significance.

This mandatory piece of evidence maps to SoPs 12.1 and 13.27:

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.

13.27 investigate and monitor disease processes and normal states

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 12.6 and 12.7:

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.

One of the following types of evidence could be considered to include:

- Review the laboratory investigations in which you have been trained, explaining the scientific principles by which they work and give an overview of their validation and diagnostic purpose in your clinical laboratory.
- Evaluate the diagnosis, prognosis and management of a specific disease and how you directly link your theoretical knowledge to practice.
- Discuss the aetiology of a specificcondition, including detailed scientific knowledge of the tissue, cellular or molecular changes that take place as the disease progresses.

Module 2: Health and Safety and Wellbeing

Mandatory Evidence 1 – Produce an example risk assessment that demonstrates how you work in accordance with health and safety legislation, including appropriate use of PPE, hazard controls and risk management strategies.

This piece of evidence should be from your normal routine laboratory work and explain how you apply the principles of health and safety to your every day practice to ensure your own safety and that of others in your laboratory. It should include an analysis of the potential risks and how you mitigate against them before, during and after your task is completed.

This mandatory piece of evidence maps to SoPs 14.2, 14.3 and 14.4:

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.

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 3.1, 3.2, 3.3, 3.4, 12.10, 14.1, 14.5, 14.6, 15.1, 15.2, 15.3 and 15.4:

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

12.10 understand the biological hazards groups and associated containment levels

14.1 understand the need to maintain the safety of themself and others, including service users, carers and colleagues

14.5 establish safe environments for practice, which appropriately manages risk

14.6 understand the application of principles of good laboratory practice

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

One of the following types of evidence could be considered to include:

- Create a poster showing the common health and safety risks in your training laboratory and how these risks can be minimised.
- Compare and contrast the biological hazards and / or containment levels of different clinical laboratory specialisms and why these are required to manage risk, protect the safety of colleagues and maintain good laboratory practice.
- Review how you monitor your own mental and physical health, describing the strategies you adopt for physical and mental self-care to ensure you can practise safely and effectively.
- Write a self-reflection on how you maintain a high standard of professional effectiveness and a safe working environment, including how you would seek help and support when necessary.

Module 3: Quality

Mandatory Evidence 1 – Participate in a scheduled quality audit in your laboratory and review the audit outcomes to identify any impact on service and potential improvements.

This piece of evidence should explain your role in the quality audit (this could be shadowing a scheduled audit completed by a biomedical scientist or quality manager). You should use the original audit to produce a summary of the main findings and explain if any issues were identified that might affect service delivery. Having identified any issues, you should also explain how these will be addressed, tracked and managed to improve service delivery.

This mandatory piece of evidence maps to SoPs 11.1, 11.4 and 11.6:

11.1 engage in evidence-based practice

11.4 participate in quality management, including quality control, quality assurance, clinical

governance and the use of appropriate outcome measures

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

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 11.2, 11.3, 11.5, 11.7, 11.8, 13.19 and 13.20:

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

11.5 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

11.7 select and apply quality and process control measures

11.8 identify and respond appropriately to abnormal outcomes from quality indicators

13.19 work with accuracy and precision

13.20 perform calibration and quality control checks

13.24 formulate specific and appropriate management plans including the setting of timescales

One of the following types of evidence could be considered to include:

- List the external quality assurance accreditations that your training laboratory holds and explain why this external recognition is important for establishing and maintaining laboratory quality and competence.
- Summarise the quality control/quality assessment procedures you use in your practice, including the concepts of accuracy and precision, that inform the actions that you take to correct abnormal IQC data.
- Evaluate your ability to calibrate equipment and record relevant quality indicators in accordance with standard laboratory procedures by reflecting on a direct observation of practice (DOP) conducted by your Training Officer.
- Using a questionnaire that you have created, collect data to establish the quality of practice in your training laboratory and evaluate how these data will maintain and improve quality assurance processes.

Module 4: Performing Standard Investigations

Mandatory Evidence 1 - Personal statement that demonstrates your experience of performing standard investigations, including your analysis of the data produced and evaluation of the decisions and/or referrals made.

APPENDIX 3: Examples of Evidence of Achievement

This piece of evidence is a personal statement that describes how you perform a specific standard investigation in your training laboratory, using standard analytical procedures. Your statement should clearly identify how you ensure that the equipment you are using is fit for purpose and discuss the purpose of internal and external quality control measures in your analysis and evaluation of the data produced.

This mandatory piece of evidence maps to SoPs 4.2, 4.3, 4.4, 12.8, 13.2, 13.3, 13.4 and 13.5:

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

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

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

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 1.2, 12.5, 12.9, 13.6, 13.7, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.21, 13.22, 13.23, 13.25, 13.26, 13.28 and 13.31:

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.

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

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

13.6 undertake or arrange investigations as appropriate.

13.7 conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively.

13.12 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.

13.21 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.

13.25 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.

13.28 use standard operating procedures for analyses including point of care in vitro diagnostic devices.

13.31 safely interpret and authorise service user results.

One of the following types of evidence could be considered to include:

- Using your competency training record (with annotation / explanation) demonstrate your proficiency in using a variety of equipment and your ability to follow standard operating procedures.
- Explain how automation is used in your laboratory to manage workload and resources safely and effectively.
- Outline the different roles and responsibilities of the laboratory to authorise results in primary care and community-based laboratory services or point of care tests.
- Using annotated images or photographs, demonstrate your proficiency to carry out a standard investigation in your laboratory, including the equipment used, methodologies, reagent preparation, prioritisation, quality control, result interpretation and validation.
- Reflect on a specific experience during your laboratory training where you have encountered problems with an intended analytical method, describing how you assessed, evaluated and resolved them.

Module 5: Research and Development

Mandatory Evidence 1 - Written report on a workplace-based activity (or summary of final year university research project) that includes statistical analysis, data interpretation and evaluation of the study design.

This piece of evidence should effectively summarise a piece of research carried out in the laboratory, or a summary of the final year research project completed in your degree programme (if the content is relevant to biomedical science). You should include your approach to experimental design, trouble shooting, data collection, statistical analysis and interpretation. The summary report should also demonstrate your understanding of how developing research skills, study design and evaluation of data positively impacts on the clinical laboratory.

APPENDIX 3: Examples of Evidence of Achievement

This mandatory piece of evidence maps to SoPs 13.9, 13.29 and 13.30:

13.9 recognise the value of research to the critical evaluation of practice

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

Evidence 2 and 3

These two pieces of evidence are a free choice for the candidate but must map to the remaining HCPC standards of proficiency for this module summarised below:

Evidence 2 and 3 map to SoPs 4.6, 4.7, 12.2, 13.1, 13.8, 13.10 and 13.11:

4.6 demonstrate a logical and systematic approach to problem solving.

4.7 use research, reasoning and problem solving skills when determining appropriate actions

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

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

13.8 recognise a range of research methodologies relevant to their role.

13.10 critically evaluate research and other evidence to inform their own practice.

13.11 engage service users in research as appropriate.

One of the following types of evidence could be considered to include:

- Demonstrate your logical and systematic approach to reasoning and problem solving by reviewing a series of experiments completed in your workplace to determine appropriate actions.
- Produce a scientific review (1500-2000 words) based on several relevant journal articles that demonstrates your awareness of the principles and applications of scientific enquiry, your evaluation of treatment efficacy and understanding of the research process.
- Create an infographic of new developments, novel technologies and changing contexts that inform evidence-based practice in the discipline(s) in which you have been trained.
- Evaluate a few different research methodologies relevant to your training laboratory and explain how and why service users should be involved.

12. Appendix: 4

Training Review Meeting Template

Candidate Name		Date:	

Discussion and Feedback

Sections Complete

Targets and Deadlines

Candidate Signature		Date	
Trainer Signature		Date	

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