RECORD OF LABORATORY TRAINING FOR THE IBMS SPECIALIST DIPLOMA TRANSFUSION SCIENCE

Institute of Biomedical Science
12 Coldbath Square
London
EC1R 5HL

Tel 020 7713 0214
Web www.ibms.org
Email specialistdiploma@ibms.org

Personal Details
Name:
IBMS Membership Number:
IBMS Membership Grade:
HCPC Registration Number:
Date of HCPC Registration:
Employment Address:
Telephone Number:
Date Specialist Training Commenced:
Name of Training Officer:

Confirmation of Completed Training		
Date Training Completed	Training Officer's Signature	Candidate's Signature

Recommendation for Award of Specialist Diploma		
Date of External Examination	External Examiner's Signature	External Examiner's Name

Training Review A training review should occur on a monthly basis between the trainee and training officer. These will provide an opportunity for feedback, set targets, agreed deadlines and monitor progress.		
Reviewed by	Date	Comments

Contents

1. INTRODUCTION

1.1. In order for you to be awarded an Institute Specialist Diploma you must be a current member of the Institute since the time you were issued with the portfolio. You must have held corporate membership for at least one year and be a current member at the time of the examination.

1.2. The Institute of Biomedical Science (Institute/IBMS) Specialist Portfolio provides the opportunity for you to gain recognition that you have finished a programme of structured, standardised post-registration training. This requires you to complete the IBMS Record of Training for the Specialist Diploma (Specialist Portfolio), submit a portfolio of evidence for assessment and undertake an oral examination of your specialist knowledge and understanding in your chosen field, in order to be awarded the Institute's Specialist Diploma.

1.3. Holding a Specialist Diploma demonstrates that you have been assessed against a benchmark standard for a specialist practitioner in your chosen discipline. It can be used by your employer to demonstrate specialist knowledge and skills linked to career and pay progression.

1.4. The Specialist Portfolio is considered to be the property of the individual as it represents a commitment by the employer for professional development specific to them. It is not 'owned' by the laboratory. If you are re-employed in another laboratory and you wish to continue with a partially completed portfolio, it is at the discretion of your new employer whether or not they wish to continue with the same portfolio or restart the process. If they opt to continue with the existing portfolio, the new employer is responsible for reviewing the evidence in your portfolio and confirming your competence in line with the requirements of your position.

1.5. To support completion of this Specialist Portfolio a separate guidance document has been produced (*Institute of Biomedical Science Specialist Portfolio Guidance for Candidates, Training Officers and External Examiners).* This provides all of the information required to ensure the portfolio is completed and assessed in accordance with the Institute's requirements. Following the guidance in this document is essential to your success.

1.6. It is strongly recommended that you and your training officer/mentor read and understand this document. Failure to do so could jeopardise your chances of success. External examiners for the portfolio are required to read and understand it as part of their responsibility as a representative of the Institute.

1.7. A discipline specific portfolio reflects the range of analyses that are considered to be relevant to your specialty. All sections must be completed in order to express your ability to operate at the specialist level. Completion of the sections should follow the formal training programme that is submitted by your laboratory to the IBMS as part of the laboratory training approval process.

1.8. The IBMS Specialist Portfolio can only be completed in laboratories which hold IBMS approval for post-registration training.

1.9. The following sections highlight some key points **but are not a substitute** for reading the information contained in the *Institute of Biomedical Science Specialist Portfolio Guidance for Candidates, Training Officers and External Examiners.*

2. TRAINING

2.1. As a requirement for IBMS approval of your laboratory for training you must have an indicative training programme which sets out the sections of the laboratory they will rotate through, the expected duration in each area, the module(s) that are covered and how training is assessed.

2.2. In-service training and assessment must demonstrate good scientific practice based on the knowledge and competence in the stated modules in order to meet the requirements of the external examination process. Each module requires you to demonstrate knowledge and competence elements specific to an investigation or task. It is the responsibility of the trainer(s) to ensure that you meet the expected level defined by the following learning outcomes which have been subdivided into three areas.

Knowledge and understanding
As a successful candidate you will be able to:

a. Demonstrate knowledge and understanding of complex scientific and technical aspects of their specialist discipline including: correct procedures for handling specimens before, during and after analysis; maintenance of routine equipment; principles of in-house data management systems and quality control/assurance procedures.

b. Demonstrate knowledge and understanding of the scientific basis of the laboratory tests and the disease process under investigation.

c. Show an awareness of current issues and developments within healthcare and biomedical science.

These are evidenced by in-house assessments of training and examination of knowledge during the *viva voce* with the external examiner to assess the ability of the candidate to describe/discuss these aspects of their work.

Professional skills
As a successful candidate you will be able to:

a. Competently perform a range of laboratory tests without immediate supervision.

b. Demonstrate self-direction in solving problems and exercising personal autonomy in relation to scope of practice.

c. Demonstrate a systematic application of professional knowledge and understanding in the interpretation of laboratory data to determine action based on best practice.

These are evidenced by the in-house assessments of training and portfolio of evidence.

Transferable skills
As a successful candidate you will be able to:

a. Demonstrate communication skills within the healthcare environment and as part of the laboratory team. This is evidenced by the presentation.

b. Demonstrate the ability to critically reflect in order to inform best practice. This is evidenced by personal reflective statements.

2.3. Where you do not have access to a particular technique, knowledge must still be demonstrated together with an understanding of the key skills required to perform the test. There may also be other tests your laboratory includes within its basic in-house repertoire in which you are additionally required to be competent. These can be assessed and then recorded in the reflective practice statement at the end of each sub-section.

2.4. The Institute recommends that you have a regular review of your training (e.g. on a monthly basis) with your training officer in order to monitor your progress. These sessions will provide an opportunity for you to receive feedback on how your training and completion of your portfolio is progressing against the structured departmental training programme you will be following, which is a requirement for IBMS training laboratory approval). It is a time to take into consideration issues that have impacted

on your training, and whether additional support is required or available. Targets to complete stages of your training can be set and deadlines for meeting them, agreed.

3. EVIDENCE

3.1. Evidence is generated through the internal assessment of your training and can be from a variety of sources (see section 5.11 in the guidance document for some examples). Many pieces of evidence will be generated and you will need to select those most suitable for the Specialist Portfolio module. Your training officer should be asked to check these are appropriate and confirm meet the requirements of the standards for external examination.

3.2. Evidence must be filed in a single specialist portfolio of evidence.

3.3. In addition to evidence of answering questions set by the trainer only ONE other example of evidence is required for the **Evidence of Achievement** section. This is chosen by you as an example of evidence that demonstrates your knowledge and competence in performing a particular technique.

3.4. You are required to justify your choice of evidence in a reflective practice statement at the end of every module.

3.5. Evidence must be sufficient to enable an informed judgement by the external examiner on whether the standard in terms of knowledge and skills for the module has been met.

The amount of evidence must not exceed the requirement for evidence stipulated in the evidence of achievement section and should be presented in one A4 size lever arch folder.

3.6. Your portfolio of evidence will be externally assessed as part of examining your suitability for the award of an IBMS Specialist Diploma. It is very important that it is well organised and an index for the evidence is provided.

4. COMPLETING THE RECORD OF LABORATORY TRAINING

4.1. Once you have completed your training for a particular module it must be signed off by the trainer to confirm that the knowledge and competence requirements and the Evidence of Achievement sections have been met.

4.2. You are required to complete a reflective practice statement at the end of each module to justify your selection of evidence.

4.3. All sections of your record of training for the Specialist Portfolio must be completed and signed off by the trainer, and your portfolio of supporting evidence checked, to confirm your suitability for the specialist examination.

5. END-POINT ASSESSMENT

5.1. On completion of training and in accordance with the requirements of the Specialist Diploma, your employer should apply to the Institute for the appointment of a visiting external examiner.

5.2. Accompanying the portfolio should be a signed statement from the laboratory manager testifying to the range of laboratory investigations that you undertake in your own laboratory. This will be used by the external examiner to guide the areas for questioning during the laboratory tour. Please note the external examiner can ask questions on any of the modules in the record of training for the Specialist Portfolio and your portfolio of evidence.

5.3. The external examiner will determine your suitability for the award of the Specialist Diploma by assessing your knowledge and understanding of your specialty through: the oral presentation; the evidence of training you have provided and questions asked during the laboratory tour.

5.4. Your presentations should not be overcomplicated and slides should be kept simple: they are really a prompt to give your talk a structure. You are talking about things you know: how you gained your experience, key aspects of your work, recent developments that may have occurred, or are planned and any particular interests you have. The external examiner may also wish to ask some questions related to the presentation or seek points of clarification.

5.5. Your portfolio of evidence will provide the examiner with an opportunity to assess the quality of your training (e.g. through the questions asked by the trainer) and your understanding of the techniques (e.g. annotated evidence, witness statements, reflective statements).

5.6. During the laboratory tour with *viva voce* the external examiner will not assess your practical competence; this was the responsibility of your trainer. However, they will expect you to be able to demonstrate knowledge and understanding of the practical

aspects underpinning a techniques and corrective action you might take if things go wrong.

It is reasonable for the examiner to ask questions on any aspect covered in the portfolio. A theoretical knowledge is required as a minimum on tests performed outside of the department. Questions may include references to equipment in use, samples that are being processed, investigative techniques being performed, quality control, results and health and safety.

5.7. After this you will be informed of the outcome (Pass or Fail) and verbal feedback will be provided by the examiner. If you have not been successful the examiner will provide more detailed written feedback explaining the reason(s) for this outcome and providing guidance on how to address them. This will be recorded in the examiner's report. A timeline will be agreed by the candidate, training officer and examiner to address any shortfalls. A subsequent full or partial examination will be required and this must be arranged through the IBMS.

6. COMPLETION OF REPORTS AND AWARD

6.1. Check with your trainer that they have submitted the feedback report form to the Institute. Both the external examiner and the laboratory trainer are required to submit reports, and delays in this part of the process will delay the award of your Specialist Diploma.

6.2. Once the reports have been received the Institute will issue your Specialist Diploma. If you are currently in the class of Licentiate you will be eligible to apply to upgrade your membership to become a Member. Upgrading to the next level of membership is not automatic and you are advised to make an application to the Institute as soon as possible in order to access the Institute's higher level qualifications to assist you in furthering your career.

Section 7:
Transfusion Science

This section covers the range of procedures and diagnostic techniques that have been identified as being most relevant to practice as a Specialist Biomedical Scientist working in Transfusion Science. Candidates completing these are expected to be able to demonstrate the application of knowledge and skill defined in section 2 of this portfolio.

It is accepted that some of these tests may not be performed in the candidate's own laboratory. Whilst practical skills may not be achievable (for example through secondment to another laboratory) to the level of someone performing them regularly, knowledge and understanding of its application is still required and may be examined.

There may be other tests, outside of those listed in this portfolio, that are part of the training laboratory's basic repertoire in which the individual is required to be competent. These can be recorded in the reflective statement at the end of each sub-section.

Section 7.1 Patient and Donor ABO/D Typing and Antibody Screening
Subsection 7.1a ABO/D typing and antibody screening

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Basis of the major blood group systems – genes, antigens and antibodies – and their clinical significance in transfusion medicine.
2. Principles of the indirect antiglobulin test (IAT), and of commonly used technologies available for detection of clinically significant antibodies.
3. Factors affecting antigen-antibody reactions *in vitro*.
4. Principles of serological tests used in manual and automated blood grouping and antibody screening, their appropriate use and potential sources of error.
5. Increased security afforded by the electronic transfer of ABO/D and antibody screening results from automation to the LIMS.
6. Specifications of reagents for patient blood grouping and antibody screening, the rationale behind their selection, and controls required depending on the testing system and methods used.
7. Use of potentiators in routine reagents and the potential difficulties in result interpretation.
8. Validation of reagents prior to use and actions to take in any cases where validation fails.
9. Minimum specifications for blood grouping in emergency situations, and before the issue of group compatible blood (consider the two sample rule if applicable locally).
10. Testing requirements for new and repeat donors, and for donations used for special purposes (e.g. paediatrics).
11. Relevance of erroneous and anomalous results patient testing.
12. Internal quality control and external quality assessment procedures.
13. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Apply sample acceptance criteria and demonstrate understanding of the risks associated with inadequately labelled samples in transfusion.
b. Perform indirect antiglobulin tests (IAT) and demonstrate an understanding of possible sources of error dependent on the technology used and the patient's clinical condition.
c. Perform blood grouping and antibody screening tests using manual and automated methods.
d. Complete documentation accurately and in accordance with quality control and audit requirements, use IT and follow procedures to minimize the risk of transcription error.
e. Select and apply appropriate controls, recognise control failures and identify further actions required.
f. Interpret patient blood grouping and antibody screening results, recognise anomalies and identify further actions required.
g. Provide safe blood components for patients (if clinically necessary) before a confirmed ABO/D result can be established.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.1 Patient and Donor ABO/D Typing and Antibody Screening
Subsection 7.1b Investigation of ABO and RhD anomalies

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Clinical and laboratory factors that may affect results of ABO and D typing.
2. Clinical and laboratory factors that may lead to anomalous results of ABO and D typing.
3. Principle and practice of investigating blood group anomalies in specific patient groups (e.g. paediatric, elderly and immunosuppressed patients).
4. Principles and practice of investigating blood group anomalies in various clinical and technical scenarios, including:
   - Haemopoietic stem cell transplantation
   - Presence of cold agglutinins
   - Transfusion reactions
   - Potential 'wrong blood in tube
5. Scientific basis and significance of ABO subgroups and weak / partial D types in donors and patients.
6. Limitations of testing when using rare antisera.
7. How to interpret anomalous grouping results in clinical and laboratory circumstances and select safe and appropriate components for the patient.
8. How to interpret blood grouping tests in the donor context and identify donations not suitable for use or with restricted use.
9. Criteria and trigger factors for further testing or referral before a blood group can be assigned.
10. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Prepare samples and select reagents and controls.
b. Select appropriate tests to investigate ABO/D anomalies and perform them in accordance with standard laboratory procedures.
c. Interpret results of tests and controls and distinguish between normal, erroneous and anomalous results.
d. Interpret donor ABO/D typing anomalies and assign appropriate groups or quarantine donations following further investigation.
e. Assign appropriate blood groups to patients to ensure safe transfusion practice.
f. Identify samples requiring additional testing and possible referral.
g. Complete documentation in accordance with quality assurance and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.1 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce*.

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.1 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.2 Antibody Identification

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Basis of the major blood group systems, the characteristics of red cell antigens within each system and the clinical significance of corresponding antibodies in pre-transfusion and antenatal scenarios.
2. Mechanisms of antigen:antibody reactions and their role in *in vivo* red cell destruction.
3. Principles, practice and application of the range of tests available to aid antibody identification.
4. How to positively identify antibody specificities using British Committee for Standards in Haematology (BCSH) guidance on inclusion.
5. How to systematically exclude antibody specificities as part of the antibody identification process.
6. Relevance of red cell phenotyping in antibody identification.
7. Limitations of testing when using rare antisera.
8. How to interpret results, recognise and deal with samples requiring further investigations.
9. Internal and external quality assurance procedures.
10. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Prepare samples, select reagents and controls.
b. Perform routine red cell antibody identification tests in accordance with standard laboratory procedures.
c. Interpret the result of antibody identification, and employ a range of further tests to elucidate alloantibody mixtures.
d. Identify whether there are any underlying clinically significant alloantibodies in cases with autoantibodies.
e. Recognise cases requiring additional tests and/or clinical advice.
f. Recognise the likely clinical significance of the antibody specificities identified and select safe blood components for transfusion.
g. Complete documentation in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.2 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.2 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.3 Red Cell Phenotyping

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Relevance of red cell phenotyping in pre-transfusion and antenatal testing.
2. Rationale for extended red cell phenotyping for patients on long-term transfusion support and know which groups of patients may require blood matched for antigens other than ABO and D.
3. In which situations red cell phenotyping cannot be performed and genotyping is required.
4. Selection of reagents and controls for red cell phenotypes.
5. Limitations of testing when using rare antisera.
6. Requirement for validation of reagents prior to use.
7. Relevance of antithetical groups when performing red cell phenotypes.
8. Internal quality control and external quality assessment procedures.
9. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Recognise situations where phenotyping will not give a reliable result.
b. Prepare samples and select reagents and controls.
c. Perform extended red cell phenotyping in accordance with standard laboratory procedures.
d. Identify appropriate antithetical and familial antigen groups required for a complete phenotype.
e. Interpret results and distinguish between normal, unusual, erroneous and abnormal results.
f. Complete documentation in accordance with quality control and audit requirements.
g. Identify samples requiring referral for additional testing.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.3 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.3 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.4 Testing Donations for Microbiology Markers

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Aetiology of transfusion transmitted viral infections (e.g. HBV, HCV, HIV, HTLV).
2. Aetiology of other transfusion-transmitted infections (e.g. syphilis, malaria, Chagas' disease, West Nile virus).
3. Background of variant Creutzfeldt-Jakob disease (vCJD) and the potential risks of prion transmission by transfusion/transplantation.
4. Mandatory tests for transfusion-transmitted infection (TTI) to be performed on all donations.
5. Risks of bacterial contamination of blood and components.
6. Algorithms for microbiology testing, including confirmatory testing, and donor deferral/reinstatement.
7. Principles and use of automated/semi-automated test systems for microbiology tests.
8. Principles of ELISA, chemiluminescence, Nucleic Acid Amplification Testing (NAT) and CMV testing.

COMPETENCE

Be able to:

a. Prepare samples, select reagents and controls.
b. Perform screening tests for TTIs in accordance with laboratory standard operating procedures.
c. Interpret results of controls and tests.
d. Identify any samples that require further investigations.
e. Complete documentation in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.4 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce*.

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.4 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.5 Component Preparation

Subsection 7.5a Good manufacturing practice (GMP) and the preparation of blood components

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Criteria for the selection of blood donors in the UK.
2. Actions taken to reduce microbial contamination at collection.
3. Principles and practice of Good Manufacturing Practice (GMP).
4. The GMP (Orange) Guide, EU directives, Blood Safety and Quality Regulations (BSQR), British Committee for Standards in Haematology (BCSH) guidelines, Consumer Protection Act and Product Liability, and the application of their content in transfusion medicine.
5. Methods for routine blood component preparation (red cells, platelets, fresh frozen plasma [FFP] and cryoprecipitate).
6. Methods for specialist blood component preparation (e.g. for neonates, intrauterine transfusion [IUT], washed cells).
7. The rationale and methods for leucodepletion and irradiation of blood components.
8. Principles of, and methodologies for, pathogen inactivation/reduction of blood components.
9. Product validation and labelling criteria for blood components.
10. Criteria for storage of blood components and the requirement of recall procedures following a cold chain-related incident.
11. Requirements for validation of equipment/processes and for change control including:
    - Validation of a blood component storage environment
    - Validation of the 'cold chain'
12. Validation of equipment and maintenance of the validated state.

COMPETENCE

Be able to:

a. Identify process(es) needed to produce desired component.
b. Prepare routine components (e.g. RBCs, FFP, platelets).
c. Prepare specialist components where appropriate (list those prepared).
d. Identify correct conditions for quarantine and storage of blood components.
e. Maintain the cold chain following component storage failures.
f. Complete documentation in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

Candidate has answered questions set by the trainer on the knowledge and skill components required to complete this module. (Evidence to support this is required).

Date of completion:

Trainer's name:

Trainer's signature:

One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.5 Component Preparation
Subsection 7.5b Quality monitoring

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Principles of haemopoiesis and coagulation pathways.
2. Specifications for routine and non-routine blood components.
3. Principles and practice of quality monitoring of blood components.
4. Principles of cell counting using automated haematology analysers and flow cytometers.
5. Statistical terminology (accuracy, precision, CV, tolerance, range, measurement of uncertainty) and statistical process control methods.
6. Principles and practice of environmental monitoring.
7. Principles and practice of bacteriological monitoring of blood components.
8. Calibration and traceability to UK standards.
9. Internal quality control and external quality assessment.

COMPETENCE

Be able to:

a. Select components to be tested.
b. Select correct test procedure and perform tests in accordance with standard laboratory procedures.
c. Perform statistical analysis and decide whether processes are in control.
d. Identify non-conforming components and any further actions required.
e. Complete documentation in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

Trainer's signature:

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Date of completion:

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This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.5 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.5 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.6 Selection of Blood and Components

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. How to interpret tests and their results from other areas/disciplines of pathology (e.g. haematology and coagulation) in clinical context to determine transfusion requirements.
2. Alternatives to allogeneic blood transfusion.
3. Importance of communication with all staff groups involved in effective provision of transfusion support in routine and emergency situations.
4. Own trust/service policies on transfusion and major haemorrhage.
5. Criteria for selection of red cells and components for patients with clinical conditions giving rise to special requirements (e.g. HSCT, IUT, neonates, AIHA, solid organ transplants, red cell antibodies).
6. Rationale for selection of red cells and components with additional specifications (e.g. irradiated, CMV-negative, HbS-negative, K-negative for females of child-bearing potential, phenotyped).
7. Internal quality control and external quality assessment procedures.
8. Main requirements of national guidelines relating to the above.
9. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Determine what tests are required before issuing blood or components.
b. Select the appropriate blood component to meet the patient's special requirements.
c. Provide safe and effective blood and components for emergency use.
d. Provide transfusion support in cases of major haemorrhage, demonstrating the ability to communicate effectively with all parties involved.
e. Recognise the potential need for specialist products (e.g. cryoprecipitate, PCC).
f. Complete documentation in accordance with quality control and audit requirements.
g. Identify cases requiring specialist components, products or clinical advice.

EVIDENCE OF ACHIEVEMENT

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Trainer's signature:

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One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.6 Reflective Practice

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The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce*.

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.6 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.7 Pre-Transfusion Testing Procedures:
Procedures for establishing compatibility

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Importance of pre-transfusion testing in establishing compatibility.
2. Value of a historical record in pre-transfusion procedures.
3. The role of IT and automation in improving security in pre-transfusion testing.
4. Criteria for suitability of samples for serological crossmatching/electronic issue, depending on the patient's recent transfusion and obstetric history.
5. Principles and practice of serological compatibility testing.
6. Principles and practice of 'electronic' and remote issue of blood and components and the criteria for use.
7. How to investigate an incompatible serological crossmatch.
8. Limitations and effects of sample storage.
9. Internal quality control and external quality assessment procedures.
10. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Determine what tests are required before issuing blood or components.
b. Determine whether or not patients are suitable for electronic issue.
c. Perform necessary compatibility tests in accordance with standard laboratory procedures.
d. Clearly distinguish between normal and abnormal results.
e. Evaluate requests for further blood components to decide whether additional samples / tests are required before issue.
f. Complete documentation in accordance with quality control and audit requirements.
g. Identify cases where additional testing or clinical advice is required.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.7 Reflective Practice

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The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce*.

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.7 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.8 Issuing of Blood Components and Products

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Correct procedures for labelling and issue of blood components in the donor centre.
2. Correct procedures for the labelling and issue of blood components and products by the transfusion laboratory for patient use.
3. Subsequent storage requirements and expiry times of thawed plasma products.
4. Storage and transport criteria for issued blood components/products.
5. Procedures for traceability, recall, restocking and disposal of blood components and products.
6. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Label and prepare components for issue from the donor centre.
b. Prepare fresh frozen plasma (FFP) and cryoprecipitate for issue in the hospital setting.
c. Visually inspect blood components to ensure they are fit for use.
d. Label and issue blood components/products via IT systems to ensure complete traceability.
e. Manage requests for further red cells, components or products.
f. Manage return of unused blood components/products.
g. Demonstrates accurate labelling of components and understands 'line clearance' in accordance with Good Manufacturing Practice.
h. Complete documentation in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

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Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.8 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.8 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.9 Blood Stocks Management

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Risks associated with inappropriate care and handling of blood components and products.
2. Principles of appropriate use of blood and blood components.
3. Requirement for traceability from donor to patient and vice versa.
4. Role of stock management in the efficient use of blood.
5. Role of the Blood Stocks Management Scheme (BSMS).
6. Local policies and procedures and national guidelines covering all of the above including emergency blood management where national stock levels are 'critical'.

COMPETENCE

Be able to:

a. Check stocks and place routine orders with blood services in accordance with standard laboratory procedures.
b. Order blood and blood components in routine and non-routine situations.
c. Sort and rotate stock to ensure the most efficient use of stocks is achieved.
d. Collect data for the BSMS and act on feedback to minimise wastage.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

Date of completion:

Trainer's name:

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Date of completion:

Trainer's name:

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.9 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.9 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.10 Adverse Reactions and Events in Transfusion

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Classification and characteristics of adverse reactions to transfusion.
2. Laboratory-based procedures for investigating suspected adverse reactions according to clinical presentation.
3. The process for internal and external recall.
4. Role of internal and external incident reporting (e.g. Serious Adverse Blood Reactions & Events [SABRE]/Serious Hazards of Transfusion [SHOT]) in reducing errors in blood transfusion.
5. Principles and application of root cause analysis.
6. Current British Committee for Standards in Haematology (BCSH) guidance on adverse reactions and events in transfusion.

COMPETENCE

Be able to:

a. Respond to reports of suspected adverse reactions/events in accordance with standard laboratory procedures.
b. Identify the probable 'type' of adverse reaction/event.
c. Identify the samples required and refer for appropriate testing.
d. Complete an internal and/or external recall in accordance with local laboratory procedures.
e. Perform repeat testing on pre- and post-transfusion samples in cases of suspected haemolytic transfusion reactions.
f. Interpret results in clinical context.
g. Recognise when referral for additional testing is required.
h. Complete documentation in accordance with quality control and audit requirement including relevant internal and external incident reporting.
i. Inform the clinical and transfusion specialist staff of the outcome of laboratory investigation.
j. Assess the need to report to SHOT and/or SABRE, and for internal SAE reporting.
k. Take part in root cause analysis if required.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

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Date of completion:

Trainer's name:

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Date of completion:

Trainer's name:

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.10 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.10 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.11 Antenatal Testing and Procedures

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Requirements for routine antenatal testing.
2. How to perform and interpret results of antenatal screening for red cell antibodies.
3. How identify samples requiring further investigation.
4. Clinical significance of red cell antibodies in the context of haemolytic disease of the fetus and newborn (HDFN).
5. Requirements for antenatal and post-natal follow-up testing where clinically significant antibodies are detected.
6. Importance of communication in successful management of pregnancies in women with red cell antibodies.
7. Principles and application of routine anti-D prophylaxis (RAADP).
8. Principles of acid-elution/staining and flow cytometric methods for measuring fetal maternal haemorrhage (FMH).
9. How to interpret FMH results and instigate appropriate follow-up testing.
10. How to determine the dose of anti-D immunoglobulin required.
11. Local policies and procedures and national guidelines covering all of the above.

COMPETENCE

Be able to:

a. Perform routine antenatal and post-natal testing.
b. Identify cases where further investigation or action is required.
c. Provide/advise on the adequate dose of antenatal anti-D immunoglobulin prophylaxis as RAADP, and to cover potentially sensitising events.
d. Provide/advise on the adequate dose of postnatal anti-D immunoglobulin prophylaxis as a standard dose and to cover any identified FMH.
e. Perform routine FMH testing by acid elution and flow cytometry.
f. Decide when samples require referral for additional or specialist testing.
g. Communicate with all staff groups involved to ensure delivery of anti-D immunoglobulin prophylaxis and appropriate laboratory follow up of pregnancies where red cell antibodies are identified.
h. Complete documentation in accordance with quality assurance and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

Candidate has been assessed by the trainer to work in accordance with standard laboratory procedures. (No other evidence is required).

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One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.11 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce.*

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.11 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.12 Haemolytic Disease of the Fetus and Newborn

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Aetiology of haemolytic disease of the fetus and newborn (HDFN).
2. Significance of red cell antibodies in HDFN.
3. Criteria and methods for quantification of antibodies in pregnancy.
4. The need to differentiate between immune and prophylactic anti-D.
5. The role of paternal testing and fetal genotyping in monitoring HDFN.
6. Routine testing required on neonates and additional testing required when the mother has red cell antibodies.
7. How to investigate a case of suspected ABO HDFN.
8. How to investigate a case of suspected HDFN due to IgG antibodies (e.g. anti-D).
9. Transfusion requirements for the treatment of HDFN.
10. Criteria for the selection of blood for intrauterine transfusion (IUT), exchange and top-up transfusions.

COMPETENCE

Be able to:

a. Prepare samples, and select correct reagents and controls for all testing.
b. Perform anti-D quantification and interpret results demonstrating awareness of the predictive value of the result in monitoring HDFN and in the differentiation of immune and prophylactic anti-D.
c. Perform titration of red cell antibodies and be aware of the clinical significance of results in the context of HDFN.
d. Investigate HDFN cases, selecting and performing the tests required, interpreting results in clinical context.
e. Undertake compatibility testing and provide appropriate blood components for the fetus/newborn as IUT, exchange or top-up transfusion, in cases of HDFN due to red cell antibodies.
f. Perform a DAT on cord blood samples and comment on the significance of the results.
g. Titrate IgG anti-A/B.
h. Perform an eluate on a cord blood sample and interpret results in clinical context.
i. Complete documentation in accordance with quality assurance and audit requirements.

EVIDENCE OF ACHIEVEMENT

This section requires the trainer to sign that the candidate has successfully achieved fitness to practice as a biomedical scientist at the specialist level. The candidate is required to present the supporting evidence indicated below as a separate specialist portfolio of evidence.

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Date of completion:

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One other piece of evidence chosen by the candidate as an example of their competence in this area.

Date of completion:

Trainer's name:

Trainer's signature:

This is to confirm that the knowledge and competence requirements for this section and the requirements in the Evidence of Achievement section have been met.

Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.12 Reflective Practice

This section is used to demonstrate that you can relate knowledge from several areas, draw conclusions and reflect on your own performance with regard to current and future practice as an independent professional learner. It is therefore a useful source of information for your CPD profile should you be audited by the Health and Care Professions Council (HCPC).

The external examiner will review this reflective report which should cross reference to the evidence contained in the portfolio. This may lead to further discussion during the *viva voce*.

Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.12 Candidate's Reflective Practice Statement Part 2.

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How you complete this section is personal to your own circumstances. It should be approached by recognising you have a responsibility to demonstrate self-awareness when analysing gaps in your knowledge. This is therefore an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

Personal reflection on your training and examples of evidence for this section.

Section 7.13 Autoimmune Haemolytic Anaemia (AIHA): Investigation of IAT pan-reactive red cell autoantibodies

KNOWLEDGE

The candidate is expected to be able to demonstrate knowledge and understanding of the following:

1. Main reasons for *in vivo* sensitisation of red cells with immunoglobulins and/or complement in autoimmune haemolytic anaemias and post-transplantation.
2. Mechanism of *in vivo* red cell destruction.
3. Principles and practice of direct antiglobulin techniques (DAT) using poly- and monospecific antiglobulin reagents.
4. How a positive DAT may influence results of pre-transfusion testing.
5. What drug regimes can result in IAT pan-reactivity antibodies to high-incidence antigens.
6. How pan-reactive IAT antibodies influence results of pre-transfusion testing.
7. How to provide blood for patients with pan-reactive IAT antibodies.
8. Internal quality control and external quality assessment procedures.
9. How to interpret results and deal with samples requiring further investigations.

COMPETENCE

Be able to:

a. Perform a DAT using poly- and monospecific reagents.
b. Perform/be aware of investigations using absorption techniques to identify alloantibodies in the presence of autoantibodies.
c. Perform/be aware of elution techniques and interpretation of the results to determine the specificity of autoantibodies.
d. Investigate cases of suspected AIHA, and suggest appropriate transfusion support.
e. Interpret results of tests and controls, and distinguish between normal, erroneous and anomalous results.
f. Identify samples requiring further or additional testing.
g. Complete documentation accurately in accordance with quality control and audit requirements.

EVIDENCE OF ACHIEVEMENT

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Date of completion:

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Internal Assessor's signature:

Internal Assessor's name:

Date:

Section 7.13 Reflective Practice

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Candidate's Reflective Practice Statement Part 1.

Summarise your role within the laboratory in the context of this section.

Section 7.13 Candidate's Reflective Practice Statement Part 2.

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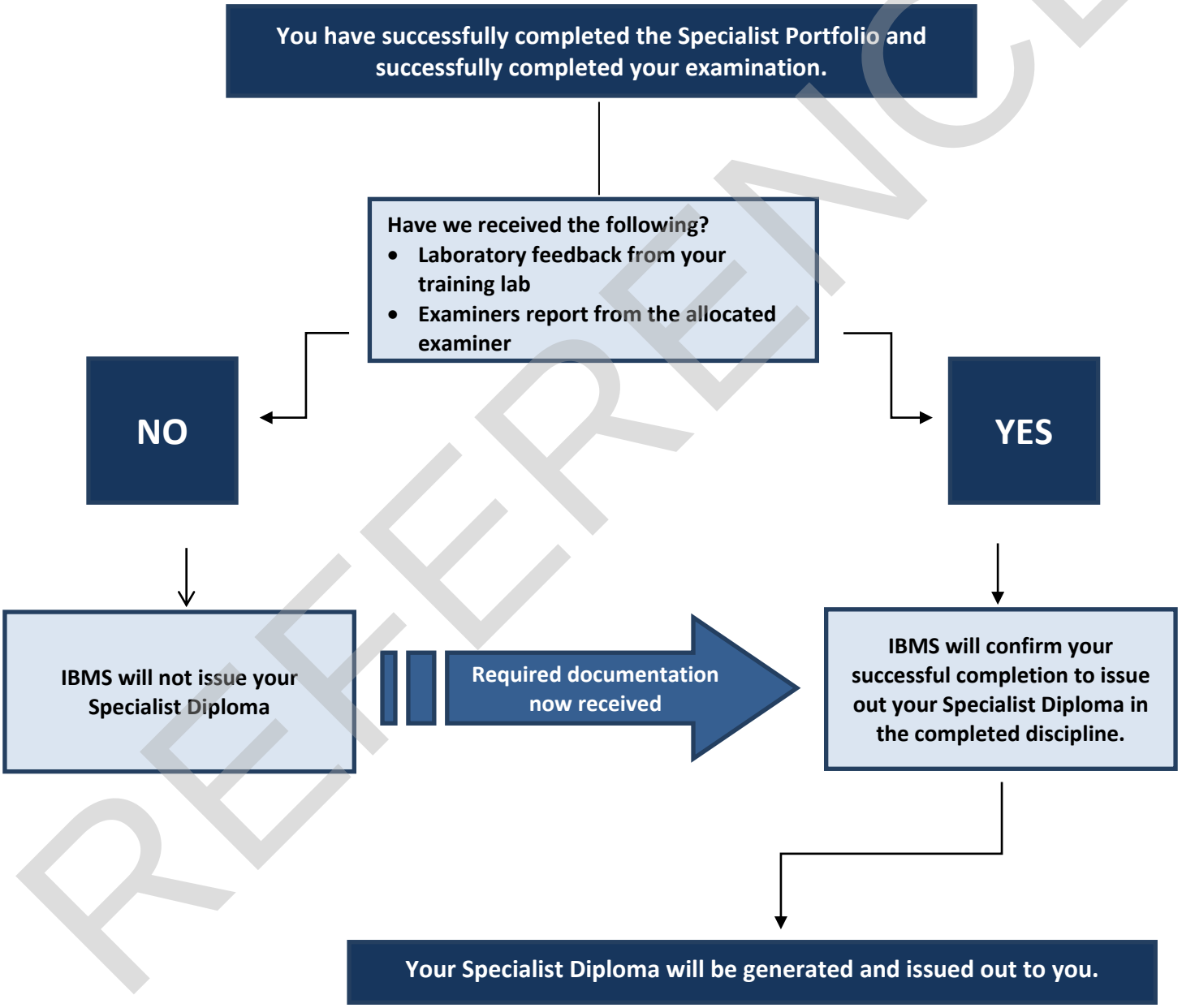
Personal reflection on your training and examples of evidence for this section.

Steps to IBMS Specialist Diploma

What is next: Your Specialist Diploma

Upon successful completion of the Specialist Portfolio, successful candidates are awarded the Specialist Diploma in the discipline(s) completed which will be issued out and sent to your provided address.

Note: The IBMS will also issue your award to your provided address.



About this document

Document title: Record of Laboratory Training for the Specialist Diploma in Transfusion Science

Produced by: Education and Professional Standards Committee

Contact: Education Department

T: + 44 (0)20 7713 0214, **E: education@ibms.org**

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