**Tees Pathology - Department of Biochemistry
IBMS Registration Portfolio Training Programme**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Training period (weeks)** | **Area** | **Learning Outcomes** | **Task** | **Mapping** | **Evidence examples used****(see evidence table below)** |
| 1 | Trust Induction | Equality and Diversity | E learning | S1M2 | e.g. S1, M2 evidence 6 |
| Infection control & hand washing | E learning | S2M2 |
| Information governance | E learning | S1M1, 2, 4 |
| Health and Safety | Local policy | S1M1, 4 S2M2 |
| Fire | E learning |  |
| Manual handling  | Course |  |
| Prevent training | E learning |  |
| Harassment and bullying | E learning | S1M2 |
| Investigating incidents | E learning |  |
| Spinal awareness | E learning |  |
| Safeguarding Children | E learning |  |
| Dementia  | Workbook |  |
| Local Induction | Department structure | Discussion  |  |  |
| Introduction and familiarisation with department | Discussion |  |
| General Introduction | Observe flow of specimens through department | Observations | S1M1 |  |
| 2-4 | Specimen Reception and Sample Handling  | Specimen reception  | Competencies | S1M1, 4 S2M3 |  |
| Discrepancies | Competencies | S1M1, 2, 4, 5  |
| Communication / Telephone enquires | Competencies | S1M3 |
| Data input | Competencies | S1M3, 4 |
| Sample types | Discussion & observations |  |
| Specimen process within Biochemistry  | Competencies | S1M5 S2M1 |
| Referral laboratory samples | Competencies | S1M5 S2M1 |
| Danger of Infection Samples | Discussion & observations | S2M2 |
| Specimen storage and discard | Competencies | S2M2 |
| Housekeeping | Competencies |  |
| 5-6 | Beckman Automate | Load samples on Automate | Competencies | S2M2 |  |
| Daily maintenance | Competencies |  |
| Change parafilm | Discussion & observations | S2M2 |
| Basic troubleshooting | Discussion & Competencies | S2M1 |
| Sample path through Automate | Discussion & observations |  |
| Sorting drive | Competencies | S2M1 |
| Housekeeping | Competencies |  |
| 7-10 | Beckman AU5800 | Load samples AU5800 | Competencies | S2M1, 2, 4 |  |
| Daily Internal QC | Competencies | S2M3, 4 |
| External QC | Discussion & observations | S2M1, 3, 4 |
| Basic AU5800 upkeep and troubleshooting | Competencies | S2M1, 2 |
| Daily maintenance | Competencies | S2M1, 2, 4 |
| 11-14 | Becman DxI 800 | Load samples DxI800 | Discussion & observations | S2M1, 2, 4 |  |
| Daily Internal QC | Competencies | S2M3, 4 |
| External QC | Discussion & observation | S2M1, 3, 4 |
| Basic DxI800 upkeep and troubleshooting | Competencies | S2M1, 2 |
| Daily maintenance | Competencies | S2M1, 2, 4 |
|  | Competencies |  |
| 15-18 | Roche Cobas e411 | Load samples e411 | Competencies | S2M1, 2, 4 |  |
| Daily Internal QC | Competencies | S2M3, 4 |
| External QC, i.e. NEQAS | Competencies | S2M1, 3, 4 |
| Basic e411 upkeep and troubleshooting | Competencies | S2M1, 2 |
| Daily maintenance | Competencies | S2M1, 2, 4 |
| 19-22 | Roche Cobas b123 | Load sample on b123 | Competencies | S2M1, 2, 4 |  |
| BGE link | Competencies | S2M1, S2M3 |
| External QC, i.e. WEQAS | Competencies | S2M1, 3, 4 |
| Basic B123 upkeep and troubleshooting | Competencies | S2M1, 2 |
| Adhoc maintenance | Competencies | S2M1, S2M2,S2M3 |
| 23-26 | Arkray Adams HA-8180 V | Load samples HA-8180 | Competencies | S2M1, 2, 4 |  |
| Daily Internal QC |  | S2M3, 4 |
| External QC, i.e. NEQAS | Discussion & observations  | S2M3, 4 |
| Basic HA81-80 upkeep and troubleshooting |  | S2M1, 2 |
| Daily maintenance | Competencies | S2M1, 2, 4 |
| 27-30 | Bench:Model 3320 OsmometerCorning 925 Sweat Chloride meterPipetting and DilutionsKetone meterUvikon xs | Load samples  | Discussion & Observations | S2M1, 2, 4 |  |
| Daily Internal QC | Competencies | S2M3, 4 |
| External QC | Competencies | S2M1, 3, 4 |
| Basic analyser upkeep and troubleshooting  | Competencies | S2M1, 2 |
| Daily maintenance | Competencies | S2M1, 2, 4 |
| 31-40 | Rotation through above areas | Develop skill learnt in weeks 4-30 | Discussion & observations | S1M5, S2M1,S2M4 |  |
| Additional | Visit Departments | Shadowing throughout pathology | Discussion & observations | S1M1,5 |  |
|   | POCT Visit | Shadowing POCT | Discussion & observations | S1M5, S2M1, S2M4, S2M3 |  |
|  | Biochemistry Case Discussion Visit | Attend a Biochemistry case discussion | Observation | S2M1, S2M3 |  |
|  | Research project | Research project, journal review, data analysis | Lab project | S2M5 |  |
| AdditionalNotes: Additional to this there are Biochemistry competencies for all staff which should be completed and countersigned, along with performance profiles as appropriate throughout the training procedure. (This related to S2M4.)Training reviews will be performed on completion of each rotation, additional performance review meetings will be held monthly as required.  |  | Research project, journal review, data analysis |

**IBMS Registration Portfolio Version 4 Suggested Evidence (v5 mandatory evidence)**

Suggested evidence is as a guideline only, evidence can be from any area of the lab so long as it is not duplicated.

|  |
| --- |
| **Section 1 Module 1 - Personal Responsibility and Development** |
| **Evidence Type** | **Example** |
| 1 | Personal Statement | Witness statement encompassing limit of practice, referring tasks to appropriate staff, manage workload, practice professionally and safely (duty of care using professional judgement to work autonomously), adapt for changing environment. Include how you work to maintain health. |
| 2 | Short questions | 1. What does HCPC stand for?
2. What is required of you to become a HCPC registered biomedical scientist?
3. Briefly describe what the HCPC’s ‘Standards of conduct, performance and ethics’ mean to you?
4. Briefly describe what the HCPC’s ‘Standards of proficiency’ mean to you?
5. Explain what “fitness to practice” is and give examples from the work you have done.
6. How do Biomedical Scientists maintain fitness to practice and why is this important?
7. What does IBMS stand for?
8. What is the role of the IBMS in the registration process?
9. Describe the principles of pathology accreditation and what is ISO 15189?
 |
| 3 | Reflection | Give an example of a CPD activity you have attended and reflect on this, include how this is recorded. e.g. E-learning / copy of attendance register.  |
| 4 | Reflective piece | Show how you take responsibility for self-directed learning (include a summary of your CPD activities), and how and why the activities have informed your laboratory practice. |
| 5 | Laboratory based evidence + Personal statement | Give an example of a time when your personal limit of practice was exceeded and what you did. |
| 6 | Research evidence  | Screen shot of HCPC web site – print standards of proficiency and write a paragraph on each.OrCreate a summary document that explains the role of the Health and Care Professions Council and what is required to be a registered biomedical scientist. |
| **Section 1 Module 2 – Equality and Diversity** |
| **Evidence Type** | **Example** |
| 1 | Short questions | 1. What is equality and diversity?
2. How does equality and diversity affect your role?
3. What are the local equality and diversity guidelines?
4. Describe how the HCPC code of conduct, performance and ethics applies to your professional practice.
 |
| 2 | Personal statement | Discuss how practice has been adapted to meet the needs of service users. |
| 3 | Personal statement | Give examples of how you practice in a non-discriminatory manner (equality & diversity) in your working practice. |
| 4 | Laboratory based evidence  | Produce a diagram / flow chart / poster / leaflet for service users that describes why it is important to know about protected characteristics (e.g. age, race, sex, pregnancy, disability etc.) and how these are respected during sample analysis. |
| 5 | Reflection | Equality and diversity E-learning + reflection |
| 6 | e-learning | Complete E&D mandatory training module and provide evidence (e.g. certificate and screenshot of 4 of the most important slides – write on these slides). |
| **Section 1 Module 3 - Communication** |
| **Evidence Type** | **Example** |
| 1 | Short questions and reflection | 1. List the various ways or situations in which information is given to, and disseminated between staff within Haematology.
2. Discuss the characteristics, advantages and disadvantages for each of these.
3. Reflect on a specific example i.e. attend a lab meeting.
 |
| 2 | Laboratory based evidence | * Request form screenshots and annotate, including a list of commonly used medical abbreviations.
 |
| 3 | Laboratory based evidence | * OMNI screenshots (how to look up and locate in results enquiry)
 |
| 4 | Competency record/witness statement | Confirm ability to use basic LIMS in accordance with SOPs to access and input data |
| 5 | Telephone skills log including witness statement | Witness statement that shows you have demonstrated/explained how you perceive that information or a result is understood by the recipient. |
| 6 | Reflection  | Provide a reflective summary of your interpersonal skills, e.g.:* Verbal communication
* Non-verbal communication
* Listening skills
* Negotiation
* Problem-solving
* Decision-making

And explain how you have adapted these to actively try to remove barriers to communication with different people. |
| 7 | Laboratory based evidence | Describe, with 3 pieces objective inclusions (e.g. photo, screenshots) the different ways information is communicated and relayed to groups of staff throughout the department and other service users:* Huddles
* LIMS notes / result flags / ward messages
* Handover sheets
* Departmental emails
* Laboratory meetings
* Equipment logs and analyser notices
* Items of whiteboard
 |
| **Section 1 Module 4 – Patient Records and Data Handling** |
| **Evidence Type**  | **Example** |
| 1 | Competency and Witness statement(specimen reception) | * To show you know the minimum patient identification criteria and can follow the protocol that is used for inadequately labelled samples.
* Confirm your use of LIMS is in accordance with SOP’s.
* Show you can work in accordance with laboratory procedures for receipt of samples, dealing with inadequately or incorrectly labelled specimens and incomplete request forms
 |
| 2 | Laboratory based evidence | Give examples of when **you** have dealt with:* Insufficient specimen
* Clotted specimen
* A specimen received in the incorrect preservative
* Incorrectly or inadequately labelled specimen or request form
 |
| 3 | Short questions | 1. What is the purpose of the Data Protection Act?
2. List the types of records kept in the laboratory, and the systems that operate to ensure continuity, confidentiality and access of records
3. What would you do if a patient phoned the laboratory in order to get their blood results?
4. How are records maintained and stored and for how long?
 |
| 4 | E-learning | Information governance certificate including a reflective piece and certificate. |
| 5 | Laboratory based evidence | Explain the different record keeping systems in your laboratory, including how these systems ensure continuity, confidentiality and appropriate access to the records (ensuring compliance with data protection legislation). |
| 6 | Documentation – laboratory based. | Review a specific sample pathway (e.g. use a flow chart), from receipt to result, explaining the importance of consent and confidentiality. |
| **Section 1 Module 5 – Professional Relationships** |
| **Evidence Type** | **Example** |
| 1 | Reflection (mandatory evidence for both v4 + v5) | How the engagement with service users has contributed positively to your professional development. |
| 2 | Short questions | 1. List the different areas of the lab you have worked in, and a brief description of the type of work undertaken in each area.
2. Which staff groups, other than biomedical scientists, have you encountered and what roles do they have in relation to biomedical scientists.
 |
| 3 | Personal statement | Demonstrating you have good interpersonal skills e.g. include a time you reported an error or incident to a third party. |
| 4 | Laboratory based evidence | Complete a user feedback questionnaire  |
| 5 | Research evidence | E.g. Go to the department of health website and provide a screenshot / document of the latest health care system setup- describe some of the elements on this sheet. Where do you fit in on this? |
| 6 | Reflective or personal statement  | 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. |

|  |
| --- |
| **Section 2 Module 1 – Professional Knowledge** |
| **Evidence Type** | **Example** |
| 1 | Laboratory based evidence | Scan in a request form (remove patient identifiers) and give a brief description of each haematology test and their diagnostic purpose. |
| 2 | Case study | Choose a disease or condition for a case study. Describe the nature of the disease or condition and the tests that are performed to investigate, identify or monitor it. Give examples of results and comment on their significance. |
| 3 | Question | 1. Describe with reference to legal and professional requirements, how the laboratory in which you have been trained stores and disposes of human samples.
 |
| 4 | University certificate | Describe one module from your university and explain how this learning has helped you in the working environment. |
| 5 | Laboratory based evidence | Describe the different sample containers and their uses encountered in your scope of practice e.g. in blood sciences (include lab based evidence – e.g. sample type sheet found in specimen reception). |
| 6 | Laboratory based evidence | Annotate a competency assessment you will be using in your scope of practice - Complete a set of competency questions - alternatively can be used for section 2 module 4 but not both. |
| **Section 2 Module 2 – Health and Safety** |
| **Evidence Type** | **Example** |
| 1 | Short questions | 1. In a table list the different waste disposal methods we use and examples for each.
2. Discuss the different types of hazard groups and their containment.
3. Describe the health, safety and security risks common to a laboratory environment and how you would deal with them.
 |
| 2 | Reflection  | 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. |
| 3 | Witness statement | Detailing that you conform to health and safety requirements, demonstrating your ability to use safety equipment. |
| 4 | Laboratory based evidence | Produce a table detailing the reagents held within the haematology laboratory and list any risks associated with each e.g. methanol - flammable |
| 5 | Laboratory based evidence | Explain the protocol for dealing with a specimen for ?viral haemorrhagic fever. Why and when was this implemented? |
| 6 | Laboratory based practice | Complete a risk assessment (e.g. use of a centrifuge) and ensure the following is included:* Hazard identification
* Control measures
* Risk rating

Include your understanding of the following piece of legalisation: “Management of Health and Safety at Work Regulations 1999”. |
| 7 | Laboratory based evidence | Annotate a COSHH document used within your department. |
| 8 | Laboratory based practice | Complete a Datix, CA/PA etc.  |
| **Section 2 Module 3 - Quality** |
| **Evidence Type** | **Example** |
| 1 | Laboratory based evidence | Describe an occasion when an error has occurred, how is this reported? |
| 2 | Short questions | 1. Explain the difference between internal quality control (ICQ) and external quality assurance (EQA)
2. List the EQA scheme and assays in which your department participates and explain why external schemes are important for establishing and maintaining laboratory quality.
 |
| 3 | Witness statement | To show how you are familiar with quality control/quality assurance procedures.  |
| 4 | Laboratory based evidence | Conduct a vertical quality audit on a specimen from the point it enters the department to the point at which the result is dispatched. |
| 5 | Laboratory based evidence  | Scan maintenance log for a selected analyser and reflect on this (include and annotate a IQC chart). |
| 6 | Laboratory based evidence | List the external quality assurance accreditations that your training laboratory holds (explain the purpose of EQA). Annotate an EQA report and reflect on these results. |
| 7 | Laboratory based evidence | Print of a Contronics temperature graph and annotate. Describe what Contronics is, used for and daily checks. |
| **Section 2 Module 4 – Performing Standard Investigations** |
| **Evidence Type** | **Example** |
| 1 | Short questions | Complete a set of competency questions for an assay (see senior BMS) – only if not already included in section 2, module 1 |
| 2 | Laboratory based evidence | Copy of a competency training record + reflection or personal statement |
| 3 | Witness statement | Based on direct observation of practical skills, confirm procedures related to the investigation have been followed correctly and to the required standard.  |
| 4 | Reflection | Give an example where you have encountered problems with an intended analytical method and how you have resolved them (e.g. insufficient, small samples). Include analyser, Omni screenshots) |
| 5 | Personal statement  | Demonstrates your experience of performing standard investigations within your working practice, include overview of:* Analyser (s) you have used (and tests they carry out).
* Interpretation of analyser results (high, low, repeats, error flags).
* Manual assays carried out.
* Any follow up tests/ referrals.
 |
| 6 | Laboratory based evidence | Annotate results from an investigation you have performed, give details regarding your ability to process samples for investigation. E.g. Write up (include spectrophotometer result print off) for a CSF sample analysis for Xanthochromia investigation (include method and interpretation of results). |
| **Section 2 Module 5 – Research and Development** |
| **Evidence Type** | **Example** |
| 1 | University | Dissertation statistics |
| 2 | Laboratory based evidence | * Perform reproducibility study – analyse using statistics.

Or * Inter-laboratory analyser comparison studies, assay study, analyser statistics etc.

Or* Summary of final year university research project.
 |
| 3 | Laboratory based evidence | Inter-laboratory analyser comparison studies, assay study, analyser statistics etc. (use framed research form). |
| 4 | Short questions | 1. Describe what you understand by the term ‘evidence based laboratory practice’?
2. Give an example of evidence based practice in haematology
 |
| 5 | Journal review | Include a critical evaluation of a journal article (Biochemistry)Also include:What is the importance of critical evaluation?When performing research why is it important to understand the range of technologies available? |
| 6 | Policy review | Look up the trust policy if “introducing new clinical procedures of techniques”. Take a copy of the front sheet and describe the main sections covered in the policy. |