

COVID-19 LAMP work placement programme

Framework to develop the skills for LAMP testing in response to COVID-19

Purpose

This document provides a framework for the completion of training to support COVID-19 LAMP testing. After successful completion of the training and testing the student will be issued with a Certificate of Completion of COVID-19 LAMP Work placement demonstrating their contribution to the response to COVID-19. Completion may enable some learners to evidence completion of HCPC Standards of Proficiency and the IBMS/HCPC pre-registration portfolio if they go on to undertake this.

Training methods

Review of Standard Operating Procedures, COSHH and risk assessments; Demonstration from trained staff; Supervised performance of tasks; Completion of relevant training documentation; Education meetings; completion of worksheets.

Examples of relevant policy documents that may be provided locally:

- COSHH awareness
- Manual Handling
- Waste Management & Sharps awareness
- Medical Device awareness
- Understanding Containment Levels for Biosafety

Examples of skills documents that may be provided locally:

- Receipt and Processing of Urgent Samples
- Reaction of samples not to receipt and process
- Receipt and Processing of Routine Samples
- Receipt and Processing of Outbreak Samples

Review and Assessment methods

Observations by appropriately qualified staff, completion of laboratory skills documents, Q&A and discussion.

Regular recorded meetings with the Training Officer (and Supervisors as required) to include target setting and feedback.

Project

Successful completion of the programme may be used (following discussion with the relevant HEI) to provide a project write-up.

The resources provided in this document are exemplars and alternatives may be used.

Skills for LAMP testing in response to COVID-19

Skills and good scientific and professional practice	Completed: Date and sign
Safe handling of specimens including reception, labelling, tracking and storing	
<p>Maintain a professional relationship between sample handling section, different sections of the Department, service users, phlebotomists and patients.</p> <p>IBMS Good Professional Practice https://www.ibms.org/resources/documents/good-professional-practice-in-biomedical-science/</p> <p>Sample handling https://www.ibms.org/do-you-know-what-happens-to-your-sample/</p>	
<p>Laboratory Health and Safety including handling specimens and request forms safely.</p> <p>Health and Safety https://www.hse.gov.uk/pubns/clinical-laboratories.pdf</p> <p>Management and operation of microbiological containment laboratories https://www.hse.gov.uk/biosafety/management-containment-labs.pdf</p> <p>The Approved List of biological agents https://www.hse.gov.uk/pubns/misc208.pdf</p> <p>Working with substances hazardous to health: A brief guide to COSHH https://www.hse.gov.uk/pubns/indg136.pdf</p> <p>COVID-19 Personal Protective Equipment (PPE) https://portal.e-lfh.org.uk/Catalogue/Index?HierarchyId=0_45016&programmeld=45016</p> <p>Handwashing https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/</p> <p>Infection prevention and control level 2 https://portal.e-lfh.org.uk/Component/Details/395569</p>	

<p>Health, Safety and Welfare level 1 https://portal.e-lfh.org.uk/Component/Details/622665</p> <p>Fire Safety level 1 https://portal.e-lfh.org.uk/Component/Details/622662</p>	
<p>Identify the specimen, container, anticoagulant or preservative required for each test and determine specimen-processing requirements.</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p>	
<p>PHE Taking a COVID-19 sample https://www.youtube.com/watch?v=5qHTBlxfNes</p> <p>Sample Reception https://genqa.org/GTACT</p>	
<p>Prioritise specimens according to specimen type and local requirements e.g. urgent, deteriorating specimens, maintaining patient confidentiality.</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p> <p>Dealing with urgent samples https://www.youtube.com/watch?v=25AzMfcLjA</p>	
<p>Carry out procedures within your scope of practice for dealing with incorrect or inadequate specimens and forms, e.g. labelling, insufficient, incorrect preservative.</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p> <p>Sample Reception https://genqa.org/GTACT</p>	
<p>Ensure other samples are sent to correct destination e.g. other section of lab/another department.</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p>	

<p>Safely and correctly use specimen preparation equipment as appropriate. Place specimens in correct location and storage conditions before analysis or further processing.</p> <p>Use of a centrifuge https://www.youtube.com/watch?v=He5YgfRNZAK</p> <p>How to pipette correctly https://www.youtube.com/watch?v=QGX490kuKjg</p> <p>Use of a micropipette https://www.youtube.com/watch?v=uEy_NGDfo_8</p>	
<p>Identify specimens for disposal and retrieve from storage; select correct disposal method according to specimen and dispose of specimens correctly and safely, completing necessary documentation.</p> <p>RCPATH - The storage and retention of pathological records and specimens https://www.rcpath.org/uploads/assets/049ea966-df5c-4a9f-9353ba24a69bb808/The-retention-and-storage-of-pathological-records-and-specimens-5th-edition.pdf</p>	
<p>Identify and apply correct post analytical storage conditions for a range of specimens, retention times and storage temperatures.</p> <p>RCPATH - The storage and retention of pathological records and specimens https://www.rcpath.org/uploads/assets/049ea966-df5c-4a9f-9353ba24a69bb808/The-retention-and-storage-of-pathological-records-and-specimens-5th-edition.pdf</p>	
Work with laboratory information systems	
<p>Use passwords to access Laboratory Information System (LIMS) and correctly enter patient and specimen data into LIMS according to laboratory procedure. Demonstrate correct procedure for data filing and archiving and data security and protection.</p> <p>General Data Protection Regulation (GDPR) - information https://digital.nhs.uk/about-nhs-digital/our-work/keeping-patient-data-safe/gdpr</p> <p>Caldicott Principles and patient confidentiality https://www.ukcgic.uk/manual/principles</p> <p>e-Lfh module Data Security Awareness level 1 https://portal.e-lfh.org.uk/Catalogue/Index?HierarchyId=0_45016&programmeld=45016</p>	

<p>e-Lfh module Information Standard https://portal.e-lfh.org.uk/Catalogue/Index?HierarchyId=0_45016&programmeld=45016</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p>	
<p>Use LIMS to identify and retrieve specimens from storage and correctly deal with add-on requests, completing appropriate documentation.</p> <p>IBMS Patient Sample and Request Form Identification Criteria https://www.ibms.org/resources/documents/patient-sample-and-request-form-identification-criteria/</p> <p>RCPATH - The storage and retention of pathological records and specimens https://www.rcpath.org/uploads/assets/049ea966-df5c-4a9f-9353ba24a69bb808/The-retention-and-storage-of-pathological-records-and-specimens-5th-edition.pdf</p>	
<p>Perform LAMP testing and basic laboratory techniques e.g. centrifugation and use of pipettes</p>	
<p>Perform regular monitoring, checks and equipment maintenance completing required documentation, maintenance may be: Daily, Weekly, Monthly.</p> <p>Competency based assessment – online training video on LAMP and on-line competency assessment delivery by Genomics Training and Assessment Competency Tool (GTACT) https://genqa.org/lamp-assay Line Manager register staff for participation and sign off through GTACT account.</p> <p>COVID-19 Laboratory Testing Suitable for individuals working in a laboratory processing SARS-CoV-2 virus samples for testing. https://genqa.org/GTACT</p>	
<p>Use laboratory apparatus appropriately and safely e.g. manual and automatic pipettes accurately to prepare dilutions and prepare reagents appropriate.</p> <p>WHO Biosafety video series https://www.who.int/ihr/publications/biosafety-video-series/en/</p> <p>Use of a centrifuge https://www.youtube.com/watch?v=He5YgfRNZAk</p>	

<p>How to pipette correctly https://www.youtube.com/watch?v=QGX490kuKjg</p> <p>Use of a micropipette https://www.youtube.com/watch?v=uEy_NGDfo_8</p>	
<p>Prepare laboratory reagents, completing appropriate records, paying due attention to lot numbers and expiry dates.</p> <p>Competency based assessment – online training video on LAMP and on-line competency assessment delivery by Genomics Training and Assessment Competency Tool (GTACT) https://genqa.org/lamp-assay Line Manager register staff for participation and sign off through GTACT account.</p> <p>COVID-19 Laboratory Testing Suitable for individuals working in a laboratory processing SARS-CoV-2 virus samples for testing. https://genqa.org/GTACT</p>	
<p>Store reagents/kits/consumables correctly completing required documentation, ensuring like lot numbers are stored together, stock rotation is practiced, check correct temperature storage facilities, and reports any errors/alarms.</p> <p>Competency based assessment – online training video on LAMP and on-line competency assessment delivery by Genomics Training and Assessment Competency Tool (GTACT) https://genqa.org/lamp-assay Line Manager register staff for participation and sign off through GTACT account.</p> <p>COVID-19 Laboratory Testing Suitable for individuals working in a laboratory processing SARS-CoV-2 virus samples for testing. https://genqa.org/GTACT</p>	
<p>Perform LAMP testing on patient specimen ensuring a unique identifier is attached to the specimen, identify correct and incorrect sample types.</p> <p>COVID-19 https://www.youtube.com/watch?v=fMly_2Oe9n8</p> <p>Competency based assessment – online training video on LAMP and on-line competency assessment delivery by Genomics Training and Assessment Competency Tool (GTACT) https://genqa.org/lamp-assay Line Manager register staff for participation and sign off through GTACT account.</p>	

<p>COVID-19 Laboratory Testing Suitable for individuals working in a laboratory processing SARS-CoV-2 virus samples for testing. https://genqa.org/GTACT</p>	
<p>Perform internal and external quality assessment controls, produce initial routine reports for validation, prioritise reports and identify cases for referral to senior colleagues</p>	
<p>Undertake required calibration and Quality Control procedures, identifying acceptable performance monitor progress and recognise when limits to practice are reached and seek appropriate guidance.</p> <p>Introduction to laboratory quality control (series of 6 videos from BIORAD) https://www.youtube.com/watch?v=U4to66HRbn0&list=PL4C4E14DA8A2061DC</p> <p>Basic Lessons in Laboratory Quality Control QC Workbook https://www.qcnet.com/Portals/50/PDFs/QCWorkbook2008_Jun08.pdf</p>	
<p>Perform routine reporting under supervision using laboratory information systems referring reports that are out of the student's scope of practice to appropriate staff. Identify and take appropriate action to report urgent tests results and report tests by telephone if appropriate.</p> <p>IBMS Communication of Pathology Results https://www.ibms.org/resources/documents/communication-of-pathology-results/</p>	
<p>Reflect on your experience and where appropriate perform an audit of the LAMP procedure or associated relevant process</p>	
<p>If appropriate perform an audit of an aspect of the laboratory procedures related to the LAMP COVID-19 testing and produce an audit report, drawing appropriate conclusions, making recommendations. Critically reflect on your and the departments learning and planned actions arising from this audit.</p> <p>Practitioner Training programme BSc (Hons) Healthcare Science – Life Sciences 2017-2018. pp 35 to 58: Domain 4 Research, Development and Innovation https://nshcs.hee.nhs.uk/knowledgebase/ptp-curriculum-documents/</p> <p>IBMS Guidance on Quality Management in Laboratories https://www.ibms.org/resources/documents/quality-management-in-laboratories/</p>	

<p>Medical laboratory accreditation https://www.ukas.com/download/brochures/UKAS-B9-09-2019-Medical-Laboratories-Brochure-MedRes.pdf</p> <p>Laboratory audits and quality manual https://www.yorkhospitals.nhs.uk/seeCMSfile/?id=967</p> <p>Standards of continuing professional development https://www.hcpc-uk.org/standards/standards-of-continuing-professional-development/</p> <p>https://www.ahcs.ac.uk/the-register/continuing-professional-development/</p> <p>Reflect on your experience and generate a reflective diary that demonstrates how you have taken responsibility for your learning utilising the skills required of an independent learner and your commitment to your professional practice.</p> <p>Reflective practice https://www.ibms.org/resources/documents/ibms-guide-to-reflective-practice/</p>	
<p>Adhere to appropriate standards of professional practice as defined in Good Scientific Practice and other professional standards</p>	
<p>Where applicable to your placement comply with relevant guidance and laws to include those relating to, your scope of practice, research ethics and governance, patient confidentiality, data protection, equality and diversity, use of chaperones, informed consent.</p> <p>Academy for Healthcare Science https://www.ahcs.ac.uk/wordpress/wp-content/uploads/2013/09/AHCS-Good-Scientific-Practice.pdf</p> <p>Health and Care professions Council https://www.hcpc-uk.org/standards/standards-of-proficiency/biomedical-scientists/</p> <p>https://www.hcpc-uk.org/standards/standards-of-conduct-performance-and-ethics/</p> <p>Practitioner Training programme BSc (Hons) Healthcare Science – Life Sciences 2017-2018. pp 35 to 58 cover the Knowledge and Skills aligned with the five Domains of Good Scientific Practice:</p> <ul style="list-style-type: none"> • 1: Professional Practice • 2: Scientific Practice • 3: Clinical Practice • 4: Research, Development and Innovation • 5: Clinical Leadership <p>https://nshcs.hee.nhs.uk/knowledgebase/ptp-curriculum-documents/</p>	

<p>Work constructively and effectively as a member of a multi-disciplinary team.</p> <p>IBMS Good Professional Practice https://www.ibms.org/resources/documents/good-professional-practice-in-biomedical-science/</p>	
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COVID-19 Pandemic – video-based learning

Throughout April, May, June and July, the College ran a weekly series of online seminars, looking at COVID-19 and its implications and impact on pathology.

<https://www.rcpath.org/profession/coronavirus-resource-hub/covid-19-pandemic-video-based-learning.html>