**PTP Microbiology – Year 2 and 3 Training Programme**

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| 1. **Progress meetings:**   Date 1: 17/10/18  Date 2:  Date 3:  Date 4: | | Meetings with mentor and/or project supervisor – dates TBC (recommended every 6 weeks): | | | |
| 1. **PTP Year 2 assessments:**   4 x (DOP)  1 x (CBD)  1 x (OCE)  PTP Year 3 assessments:  4 x (DOP)  2 x (CBD)  2 x (OCE) | | PTP portfolios (Life sciences + departmental specifics)   * Clinical experiential learning sign off * Gather evidence whilst in the departments for portfolios (x 10 for life sciences x 10 departmental specific) * Evidence can be used for IBMS portfolio (x 30 total)   Assessments key:   * DOP: Direct Observation of Practice skills * CBD: Case-based Discussion * OCE: Observed Clinical Event | | | |
| 1. **Project discussion**   To commence towards end of year 2 | | See project proposal for details (complete proposal in year 2)  Title:  Project supervisor: | | | |
| 1. **Departments / Areas Timetable** | | | | | |
| **Training period** | **Area (put in dates)** | **Learning Outcomes** | **Assessment method + Notes** | **List PTP evidence** | **✓ Outcome complete** |
| Year 2:  From:  To:  M T W T F | **General** | Storage conditions for reagents, media and dry stock | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Range of media available and the differences between e.g. Selective/Chromogenic |
| Is able to perform 1st line identification tests:   * Gram Stain * Catalase * Oxidase |
| Latex agglutination assay:   * Staph * Strep |
| Is able to perform 2nd line identification tests:   * X and V growth factor test * API NH * Urea/Indole * API 20E * Germ tube test |
| Identify medical gases used in the laboratory |
| Antibiotic resistance:   * Carbapenemase activity * B-lactamase activity |
| Use of the anaerobic cabinet |
| Use of laboratory centrifuges |
| Use of laboratory incubators, fridges and freezers |
| **Urine Section** | Has read the SOP | Competencies, discussions and observations | DOP or Evidence |  |
| Can identify types of urine specimen and knows the differences in processing these. |
| Iris automated system   * Able to process urine samples * Basic maintenance |
| Can perform manual microscopy |
| Examine and correctly interpret culture results |
| **MRSA Section** | Has read the SOP | Competencies, discussions and observations | DOP or Evidence |  |
| Understand the difference between types of screening:   * Admission * Elective |
| correctly plate out and incubate samples |
| Able to interpret Chromogenic media |
| Understands and applies MRSA algorithm |
| **Gynae Section** | Has read the relevant SOP | Competencies, discussions and observations | CBD or Evidence |  |
| Is able to correctly interpret wet film preparations to identify:   * Yeasts * Trichomonas vaginalis * Epithelial cells * White blood cells * Clue cells |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Direct gram stain on samples |
| **Enteric Section** | Has read the relevant SOPs | Competencies, discussions and observations  Competencies, discussions and observations | CBD or Evidence |  |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Aware significant pathogens and further tests for confirmation |
| Demonstrates ability to perform additional tests for Norovirus  Clostridium difficile  Giardia and Cryptosporidium |
| prepare and examine faecal preparations   * Direct * Concentration * Use the eye piece graticule |
| **Respiratory Section** | Has read the relevant SOPs | Competencies, discussions and observations | CBD or Evidence |  |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Able to perform Antigen Tests |
| Observed the prepare, stain and interpret smears for Acid Fast Bacilli |
| Is able to process Quantiferon samples on DS2 |
| Year 3:  From:  To:  M T W T F | **Routine Section** | Has read the relevant SOPs | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates * Store and retrieve isolates |
| Other Tests:  1.  2.  3. |
| **Mycology Section** | Has read the SOP | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Direct microscopical examination of specimens |
| **Priority Section** | Has read the relevant SOPs | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Culture and interpretation out samples:   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Cell count on fluids:   * CSF * Ascitic Fluid |
| From a Gram Stain is able to determine a differential assessment of leucocytes |
| Observed use of polarised light microscopy to identify crystal types in joint aspirates |
| **Blood Culture Section** | Has read the SOP | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Understands the principles of an automated Blood Culture system:   * Loading samples * Positive samples * routine maintenance/checks |
| positive sample sub-culture and interpretation   * Inoculate correct media * Incubate at correct temperature and atmospherics requirements * Observed reading of plates |
| Understands the reporting process of a positive microscopical finding |
| Direct from a positive bottle, e.g. Dry Spot Pneumo |
| **Molecular Section** | Has read the relevant SOPs | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| aware of the different platforms available:  1  2  3  4 |
| **MALDI-ToF** | Has read the relevant SOPs | Competencies, discussions and observations | DOP or Evidence or CBD |  |
| Understands the following extraction methods:  Direct  Partial  Full |
| Pre-analytical procedures   * Quality control process * Calibration * Weekly testing |
| Able to make up the reagents |
| Additional | **IT**  **Antibiotics** | Demonstrates knowledge of the waste procedure |  |  |  |
| Demonstrates competency in the use of OmniLab system:   * Booking samples in * Enter results onto computer system in an appropriate format |
| Correctly use Q-Pulse Quality Management System at appropriate level |
| Demonstrates knowledge of antimicrobial susceptibility testing:  • Sets used each set of pathogens  • Resistance patterns and interpretation |
| Demonstrates knowledge of the spillage policy |
|  | **Specimen reception** | Receive samples into the lab and correctly segregate them according to specimen type:   * Correct separation into benches * Knows when to reject discrepant samples * Correct storage of specimens | Competencies, discussions and observations | Evidence |  |
|  | **Other** | Is aware of and able to process specimens received as “Chain of Custody |  |  |  |
| Able to perform urine pregnancy assay |
| 1. **Notes:**   Additional to this there are departmental competencies for all staff which should be completed and countersigned, along with performance profiles as appropriate throughout the training procedure.  Life sciences PTP portfolio to be completed in year 2  Departmental specific PTP portfolios to be completed in years 2 and 3  Red boxes: include dates – students to co-ordinate year 3 dates  Agreed OCE Year 2 ? Lumbar puncture  Agreed OCE Year 1: Consultant observation | | | | | |