ZOMA
FUNGAL DIAGNOSTICS

CPD Approved
The Royal College of Pathologists

Course on the Identification of Common Pathogenic Fungi

This one-day course will cover the basic principles used in in the identification of fungi isolated in the diagnostic laboratory. Basic fungal structure will be introduced, and the focus of this course will be enteroblastic fungi. Delegates will learn how to identify and recognise core fungal morphology including conidia, conidiophores, phialides, metulae and some specialised structures such as annellides, Hülle cells and chlamydospores, and how such attributes can be used in the identification of fungi.

Details of Course Contents

Lectures are in the form of short presentations which will encourage questions and develop key knowledge skills, this will be modified dependent upon the level of experience each group has.

Tutorials are provided in the form of short presentations with some practical demonstrations to highlight key techniques.

Practicals allow the delegate to learn how to prepare their own microscopic mounts of organisms specific to the training course, and the examination of pre-prepared mounts for comparison.

Who would benefit from this course

This course is designed for microbiologists at all levels including but not limited to biomedical/healthcare scientists and medical microbiologists currently working in the laboratory and want to improve or refresh their knowledge and experience of handling and identifying fungi commonly associated with infection. A basic level of microbiology knowledge and experience is required (e.g., work within microbiology laboratory, BSc in allied science subject).

Course Outline

Total duration of learning activities 5 hrs:

Lecture: Introduction to clinically relevant pathogenic fungi; how to isolate, identify and diagnose **(1 hour)**

Tutorial: Practical aspects of microscopy and culture of fungi (including mounting techniques and their benefits/disadvantages, the use of specialised or semi-selective media) **(30 mins)**

Practical: Identification of common enteroblastic fungi isolated in clinical laboratories with an emphasis on those implicated in disease **(3 hours)**.

Assessment: At the end of the course, competency will be assessed by examination of a selection of unlabelled example cultures **(30 mins)**.

Delegates will be required to highlight through textual and drawn descriptions, key morphological features of each unknown culture which have led them to their identification. The ability to handle, prepare, and examine microscopic preparations will be observed and provided commentary on their approach to each specimen will be assessed. To achieve the certificate of competency for the identification of common pathogenic fungi 80% accuracy with appropriate reasoning will be required.

Learning Objectives for the course

- To provide delegates with the skills and knowledge to identify some of the most common pathogenic fungi recovered from clinical samples and enhance confidence in the identification to species level.
    - The core organisms highlighted on this course are *Aspergillus fumigatus complex*, *A. flavus complex*, *A. nidulans complex*, *A. niger complex*, *A. terreus complex*, *Penicillium chrysogenum*, *Purpureocillium lilacinum*, *Scedosporium apiospermum complex*, and *Fusarium species*.
- To facilitate delegates with the ability to confidently handle and identify fungal organisms which might routinely be isolated in the clinical diagnostic laboratory.
    - Be able to recognise the key morphological features seen in enteroblastic fungi including conidia, conidiophores, phialides and metulae.
- To demonstrate the optimal way to perform microscopic analysis of fungal organisms to allow phenotypic identification to genus level as a minimum.
- To develop an understanding of how to differentiate potentially significant fungi from laboratory or plate contaminants.

CPD Credits available: 5

Cost per delegate £175.00 (+VAT)

Website Link: Expert Training