

**Workshop Title:**

**Antimicrobial Susceptibility Testing: Methods and Standards**

**Facilitator(s): name, title, affiliation, email address**

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**Rationale:**

Antimicrobial susceptibility testing (AST) is a fundamental component of clinical microbiology and plays a critical role in guiding effective antimicrobial therapy, monitoring antimicrobial resistance (AMR), and supporting antimicrobial stewardship. Accurate AST requires appropriate selection of testing methods, standardized procedures, and correct interpretation according to internationally recognized standards.

This workshop provides a practical and comprehensive overview of commonly used AST methods, with particular emphasis on CLSI and EUCAST standards, interpretation of susceptibility results, and common sources of error. The workshop will help participants strengthen their laboratory skills and improve the reliability and clinical relevance of AST results.

## **Objectives:**

By the end of the workshop, participants will be able to:

- Explain the principles and clinical importance of antimicrobial susceptibility testing.
- Select appropriate AST methods according to the organism, antimicrobial agent, and laboratory setting
- Perform and interpret disk diffusion testing according to standardized guidelines
- Apply CLSI and EUCAST standards for interpretation of AST results
- Understand susceptibility categories, including S, I, and R, and their clinical implications
- Recognize common technical errors and factors that may affect AST results
- Interpret challenging AST results and selected resistance phenotypes
- Improve the accuracy and standardization of AST reporting in clinical microbiology laboratories

## **Topics to be covered:**

- Introduction to antimicrobial susceptibility testing and its role in AMR
- Principles of antimicrobial susceptibility testing
- Disk diffusion method (Kirby–Bauer)
- Other AST methods and automated systems
- CLSI vs. EUCAST standards
- Breakpoints and interpretation (S, I and R categories)
- Common errors and troubleshooting
- Detection and interpretation of selected resistance phenotypes
- Selected examples of difficult-to-interpret susceptibility patterns
- Accurate documentation and reporting of AST results

### **Expected outcomes:**

Participants will gain both theoretical knowledge and practical skills in antimicrobial susceptibility testing. They will be able to:

- Perform standardized AST procedures
- Correctly apply CLSI breakpoints
- Identify common technical and interpretive errors
- Recognize important resistance patterns
- Improve the reliability and clinical usefulness of laboratory susceptibility reports

### **Who should attend:**

- Clinical microbiologists and laboratory physicians/students
- Clinical laboratory scientists and technologists
- Pharmacists involved in antimicrobial stewardship
- Infection prevention and control professionals/students
- Postgraduate students (MSc/PhD) in microbiology and related disciplines
- Researchers working in antimicrobial resistance and antimicrobial development

### **Registration Fees (Per Workshop)**

#### **For Egyptians (EGP)**

- **Conference Participants:** 300 LE (Early Bird) / 500 LE (Late)
- **Non-Conference Participants:** 500 LE (Early Bird) / 700 LE (Late)
- **Group Rate (5 Conference Participants):** 1200 LE (Early Bird) / 2200 LE (Late). One member of the group should register for the whole group as shown.

#### **Non-Egyptians (USD)**

- **Conference Participants:** \$15 (Early Bird) / \$20 (Late)
- **Non-Conference Participants:** \$30 (Early Bird) / \$35 (Late)

N.B: for conference participants, please upload copy of your conference registration receipt.

Number of participants per workshop :Maximum of 40 participants