



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Microbiologia Clinica

2324-2-I0302D009-I0302D031M

Aims

To provide basic knowledge and diagnostic techniques of clinical microbiology.

To provide the knowledge of main routes of transmission of zoonotic diseases and of analytical methods for the diagnosis in biomedical and veterinary laboratories.

Contents

Classification and identification of bacteria.

Basic knowledge of infectious diseases.

Main bacterial pathogens among Gram-positive and Gram-negative bacteria, aerobic and anaerobic bacteria, Mycobacterium spp and pathogenic fungi.

Collection, transportation and treatment of biological samples. Techniques of culture, identification, interpretation.

Diagnosis of bacterial, viral, parasitical, fungal infections.

Antibiograms and their interpretation according to EUCAST.

Quality controls: CQI and VEQ in Clinical Microbiology lab.

The biological risk in Microbiology lab.

Methods for the diagnosis of infectious diseases in the biomedical and veterinary laboratories.

Definition and classification of zoonoses, main diffusion routes.

Role of the laboratory technician in the microbiological diagnosis.

Detailed program

- Classification and identification of bacteria.
- Basic knowledge of infectious diseases.
- Main Gram-positive and Gram-negative pathogenic bacteria, aerobic and anaerobic bacteria.
- Antibigrams, MIC determinations and their interpretation according to EUCAST.
- Diagnosis of bacterial, viral, parasitical, fungal infections.
- Classification and identification of bacteria.
- Basic knowledge of infectious diseases.
- Collection, transportation and treatment of biological samples.
- Techniques of culture, identification, interpretation.
- Quality controls: CQI and VEQ in Clinical Microbiology lab.
- Alert study, infectious diseases and nosocomial infections.
- The biological risk in Microbiology lab.
- Study of pathogens, in human and veterinary medicine, applied to laboratory diagnosis.
- Definition and classification of zoonoses, main diffusion routes. Role of the laboratory technician in the diagnosis of zoonosis.
- Diagnosis of bacteria, viral, parasitic or mycotic infectious diseases in relation to different biological samples.

Prerequisites

Teaching form

Lectures

Textbook and teaching resource

Eudes Lanciotti - Microbiologia Clinica - V edizione - CEA Casa Editrice Ambrosiana

E. W.Koneman, S.D.Allen, W.M.Janda, Introduzione alla Microbiologia, Antonio Delfino Editore.

Antonelli, Clementi, Pozzi, Rossolini - Principi di Microbiologia Medica - IV edizione - CEA Casa Editrice Ambrosiana

SOPs consultabili sul sito della Health Protection Agency, all'indirizzo:

http://www.hpa-standardmethods.org.uk/pdf_sops.asp

AMCLI Percorsi diagnostici

EUCAST www.eucast.org

M.Scaglia, S.Gatti, E.G. Rondanelli PARASSITI E PARASSITOSI UMANE Selecta Medica

F.Bernieri, D.Crotti, D.Galli, A.Raglio MANUALE ILLUSTRATO DI DIAGNOSTICA PARASSITOLOGICA Bio-Dev

I.De Carneri PARASSITOLOGIA GENERALE E UMANA Casa Editrice Ambrosiana

Semester

First semester

Assessment method

Written and oral test. Written Test: 2 open questions to be developed, chosen from several (4-5) proposed tracks. Oral: discussion interview on the written test and in-depth analysis of topics covered in class and included in the program.

The final mark, based on the weighted average score obtained by the student in the various assessments, is set at the end of the oral interview of Clinical Microbiology with the student.

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING
