UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Clinical Microbiology

2223-2-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.

Gram positive and gram negative bacteria. Aerobe and anaerobe bacteria.

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 diagnosis of zoonosis.

Detailed program

- Classification and identification of bacteria.
- Basic knowledge of infectious diseases.
- Gram positive and gram negative bacteria. Aerobe and anaerobe bacteria.
- Antibiograms and their interpretation according to EUCAST.
- Diagnosis of bacterial, viral, parasitical, fungal infections.
- Classification and identification of bacteria.
- Basic knowledge of infectious diseases.
- Gram positive and gram negative bacteria. Aerobe and anaerobe bacteria.
- 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 viral, parasitic or mycotic zoonoses, in relation to different biological samples.

Prerequisites

Teaching form

During the Covid-19 emergency period, lessons will be held remotely asynchronously with synchronous videoconferencing events

Textbook and teaching resource

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

Download SOPs of Health Protection Agency, from website: http://www.hpa-standardmethods.org.uk/pdf_sops.asp

AMCLI Percorsi diagnostici

EUCAST www.eucast.org

E.Matassa ZOONOSI E SANITÀ PUBBLICA Springer

A.Mazzeo IL CONTROLLO DELLE PRINCIPALI ZOONOSI E MALATTIE INFETTIVE IN PRODUZIONE PRIMARIA Aracne Editrice

J.R.August, A.S.Loar MALATTIE ZOONOSICHE Antonio Delfino Editore

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

V.Puccini, E.Tarsitano PARASSITOLOGIA URBANA Edagricole

M.La Placa PRINCIPI DI MICROBIOLOGIA MEDICA S.E.Esculapio

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

During the Covid-19 emergency period, oral exams will only be online. They will be carried out using the WebEx platform and on the e-learning page of the course there will be a public link for access to the examination of possible virtual spectators.

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 appointement

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING