UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Microbiology

2223-3-H4102D055-H4102D064M

Aims

The course aims to provide students with knowledge and skills for the choice of microbiological investigations, laboratory methods useful for the laboratory diagnosis and for the therapy and management of patients with infections of the skin, soft tissues, bones and prostheses.

Contents

Interpretation of laboratory results of diagnostic investigations for skin, soft tissue, bone and prosthetic infections.

Laboratory methods for the diagnosis of microbial infections.

Laboratory methods for evaluating the antibiotic sensitivity of microorganisms to antibacterial drugs.

Detailed program

Discussion of laboratory methods useful for the diagnosis of microbial infections:

- microbial characteristics of "in vitro" growth and nutritional requirements
- cultivation, isolation and identification methods
- molecular methods for the detection of microorganisms and / or microbial toxins.

Laboratory methods for evaluating the antibiotic sensitivity of microorganisms to antibacterial drugs, with particular reference to antimicrobia resistant pathogens:

- Antibiogram / E-test
- Determination of the minimum inhibitory (MIC) and bactericidal (MBC) concentrations.

Prerequisites

Knowledge of aspects covered durin the Course of Basic Pathology.

Teaching form

Interactive discussion of clinical cases, with relative laboratory investigations and interpretation of microbiological results of skin, soft tissue, bone, joint and prostheic infections. Discussion will also include the treatment of infections associated with antibiotic-resistant pathogens and guidelines for patients' management.
Presentations in small groups of specific topics related to skin, soft tissue, bone, joint and prostheic infections.

Textbook and teaching resource

Sherris “Microbiologia Medica”, EMSI.

Patrick R. Murray, Ken S. Rosenthal, Michael A. Pfaller “Medical Microbiology”, Elsevier.

Semester

First semester of the third year of the degree course

Assessment method

Assessment will be evaluated through the interactive discussion of clinical cases and in-depth study of scientific articles, with presentations in small groups.

Office hours

Appointment on request

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING