UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Fondamental of in Vivo Diagnostic Agents

2324-2-I0303D034-I0303D083M

Aims

- The aim of the course is to provide students with the To provide students with the basic principles of general pharmacology and the mechanism of action of some of the major drugs

- Student shoul also learn the basic regulatory and pharmacological aspects of drug used in diagnostic, describe the different class of drugs used in Radiology or Nuclear Medicine; learn the fundamental properties of pharmacokinetic, pharmacodynamics, safety and efficacy of drug used in diagnostic and in particular of CT radiological contrast media

Contents

Basic principles of pharmacology and regulatory requirements of diagnostic medicinal products in general with a more detailed description of iodinated contrast agents

Detailed program

Introduction to diagnostic medicinal products, regulatory requirements, general descriptions of radiological contrast media and radiopharmaceuticals.
Pharmacokinetics and chemical properties of iodinated contrast agents: chemical structure, physic-chemical properties, classification on the basis of osmolarity, distribution, clearance

Pharmacodinamics: X rays attenuation and effects on images

Adverse reaction: description of adverse reaction of iodinated contrast agent, severity, frequency, risk mitigation

and guide line
Interaction with other drugs: interaction of iodinated contrast agents with interleukine-2, metformin and beta blockers.

Prerequisites

Biomedical Sciences

Teaching form

Lectures, exercises

Textbook and teaching resource

Slide presented during the course

Semester

Second semester

Assessment method

Office hours

By appointment required by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING