UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Contrast Media and Radiopharmaceutical

2122-2-H4102D014-H4102D043M

Aims

The pharmacological aspects of diagnostics medicinal products. Topics include fundamental of pharmacokinetics, pharmacodynamics and regulatory aspects related to their use in Diagnostic imaging

Contents

Pharmacology of Diagnostic Medicinal Products

Detailed program

Pharmacology of Diagnostic Medicinal Products

Radiological contrast media: Chemical and pharmacological characteristics of biological relevance that differentiate contrast media; Main therapeutic indication and clinical and evidence based rational for the clinical use of contrast media; Main adverse event, procedures to predict, prevent and manage contrast media related adverse event. Pharmacovigilance. Radiopharmaceuticals: Nature and characteristics of radioisotopes, with specific reference to those used in diagnostic imaging; Fundamentals of radiochemistry, radiopharmaceuticals and radiopharmacology. Medicines for optical imaging: mechanism of action, instrumentation, kinetics of biodistribution and safety aspects. Risk benefit assessment for contrast media; Regulatory affairs relative to their classification and reimbursement

Prerequisites

Basic knowledge on chemistry, physics and physiology and pharmacology that will be presented during the course when necessary

Teaching form

Lectures; active and interactive discussion on critical issues presented during the course and scientific paper

Textbook and teaching resource

Slides presented during the course; scientific papers; guide line and auto evaluation question to be discussed during lessons

Semester

Second Semester

Assessment method

Evaluation with oral or written self-assessment test performed during the course; (closed questions or multiple choice); to test the ongoing learning skills, students will receive a list of question on the various lessons presented; in addition, to verify the exact understanding of the methods presented to answer a specific scientific question, papers will be provided and discussed in class; problem solving activities on specific issue will be carried out in class.

Final test: written exam: multiple choice quiz for the extensive evaluation of learning.

Evaluation criteria: theoretical knowledge, synthesis skills, ability in the application of diagnostic methods to a specific clinical or experimental contest.

Office hours

direct contact with the teacher (telephone or email)