

## COURSE SYLLABUS

### **Contrast Media and Radiopharmaceutical**

2122-2-H4102D014-H4102D043M

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#### **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**

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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)

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