UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Cardiovascular Imaging

2324-4-H4101D214

Aims

Giving students the tools to learn theoretical and practical indications to invasive and non-invasive study of the heart with the most modern methods supported by the most recent guidelines.

Contents

Technological developments of the last twenty years have given on one hand new non-invasive diagnostic tools that allows to obtain important and, until recently, no imaginable information about the structure and function of te heart. On the other hand also the invasive methodology have known a rapid evolution.

Content of this course will be the approach to non-invasive methods for studying the structure and function of the heart: ultransound Echo Color Doppler, magnetic resonance, nuclear medicine technique (myocardial stress scintigraphy, and PET) coronary computer tomography. It will be shown also a cardiac angiography with treatment of coronary stenosis. The techniques are contextualized to the study of major cardiac acute and chronic diseases with particular interest to indications in hypertension, ischemic heart disease, and heart failure.

Detailed program

The course will be done at the Niguarda Hospital in order to offer the possibility to interact with the methodology used.

- DAY 1: study of the structure of the heart using ultrasound technique.
- DAY 2: cardiac magnetic resonance and coronary CT.

- DAY 3: nuclear medicine technique (myocardial scintigraphy, PET, SPECT/CT and PET/CT).
- DAY 4: study of coronary angiography with possible means of endovascular treatment of coronary stenosis.

Prerequisites

From the 4th year of Medicine and Surgery.

Teaching form

Lectures and training.

Textbook and teaching resource

Laurent et al. Expert consensus document on arterial stiffness: methodological issues and clinical applications.

European Heart Journal Volume 27, Issue 21 Pp. 2588-2605. Essential Echocardiography - Scott D. Solomon.

European Heart Journal (2010) 31, 2501–2555, Guidelines on myocardial revascularization.

Semester

Second semester; April-May.

Assessment method

Interactive check at the course conclusion.

Office hours

e-mail contact.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING