



MEDICINE AND SURGERY

Course: ONCOLOGY

Year: 5th

Period: 2nd semester

Credits: 4

Objectives

- To understand the basic principles of epidemiology, genetics, risk factors and molecular bases of the most common cancer types
- To illustrate the general aspects of cancer diagnosis, staging, and conventional and innovative therapeutic strategies including chemotherapy, hormonotherapy, targeted therapy, immunotherapy, and radiotherapy
- To describe the most common cancer complications, treatment toxicities, late effects in cancer survivors, supportive care, and approach to terminally ill patients
- To describe the main goals of clinical and translational research with the different phases of clinical trials
- To illustrate the multidisciplinary approach to patients diagnosed with main solid tumors, including gastrointestinal, breast, lung, prostate cancers and melanoma

Prerequisites

- General bases of carcinogenesis
- Anatomy, histology, and molecular biology of main solid tumors
- Pharmacologic bases of the different classes of anticancer drugs

Contents

Topic 1 General aspects of cancer

Lecture: Epidemiology, genetics, and cancer prevention

Lecture: Cancer and nutrition - Molecular biology of cancer and precision medicine

Topic 2 Clinical and therapeutic approach to the patient with cancer

Lecture: Clinical approach to the patient with cancer

Lecture: Treatment strategies 1

Lecture: Radiation oncology (Radiotherapy) and clinical indication

Lecture: Treatment strategies 2 and clinical trials

Lecture: Treatment toxicities, complications, emergencies, follow up, cancer survivors

Lecture: Simultaneous and palliative care, and other aspects of cancer patient management

Topic 3 Approach to main solid tumors

Flipped classroom: Breast cancer – Medical Oncology



Flipped classroom: Lung cancer (non-small cell lung cancer and small cell lung cancer) – Medical Oncology

Flipped classroom: Breast cancer and lung cancer – Radiotherapy

Clinical case discussion: Breast cancer and lung cancer – Multidisciplinary team

Flipped classroom: Gastro-intestinal cancers (colorectal cancer and non-colorectal cancer) – Medical Oncology

Flipped classroom: Gastro-intestinal cancers (colorectal cancer and non-colorectal cancer) – Radiotherapy

Clinical case discussion: Gastro-intestinal cancers (colorectal cancer and non-colorectal cancer) – Multidisciplinary team

Flipped classroom: Prostate cancer and melanoma – Medical Oncology

Flipped classroom: Prostate cancer and melanoma – Radiotherapy

Clinical case discussion: Prostate cancer and melanoma – Multidisciplinary team

Teaching Methods

The Oncology Course is organized with lectures, flipped classrooms and clinical case discussion.

Verification of learning

Written exam; multiple choice

End of Semester Exam content and evaluation

Content of End of Semester Exam (ESE) (63 questions): Questions will include the whole program of the course.

ESE evaluation: 63 questions, each question 0.5 points

To pass the test you need to answer to at least 36 questions correctly

60 correct answers = 30

61-63 correct answers = 30 cum laude

Texts

Medical Oncology

Niederhuber J, Armitage J, Doroshow J, Kastan M, Tepper J: *Abeloff's Clinical Oncology* – Saunders – 2019 – 6th edition

DeVita VT Jr., Lawrence TS, Rosenberg SA: *DeVita, Hellman, and Rosenberg's Cancer: Principles & Practice of Oncology* – Wolters Kluwer Health – 2018 – 11th edition

Radiation Oncology (Radiotherapy)

Halperin EC, Wazer DE, Perez CA, Brady LW: *Perez and Brady's Principles and Practice of Radiation Oncology* – Lippincott Williams & Wilkins - 2018 - 7th edition



Hansen EK, Roach M III: Handbook of Evidence-Based Radiation Oncology – Springer Verlag New York - 2018
– 3rd edition