

26785 - Basic Principles of Anesthesia and Resuscitation. Urgent Care for Critical Patients

Syllabus Information

Academic year: 2024/25

Subject: 26785 - Basic Principles of Anesthesia and Resuscitation. Urgent Care for Critical Patients

Faculty / School: 104 - Facultad de Medicina

Degree: 304 - Degree in Medicine

ECTS: 4.0

Year: 5

Semester: First semester

Subject type: Optional

Module:

1. General information

The main objective of the elective of Anaesthesiology is to introduce students to the discipline as a whole and its implications in the critically ill patient, as well as to recognize life-threatening situations and to learn cardiopulmonary resuscitation. The subject also seeks to obtain a global vision of the patient during the entire surgical process and to teach the management and treatment of the critically ill patient, including the management of ventilation, the cannulation of large vessels and pharmacological treatment. The aim is to combine the theoretical and practical teachings so that students learn to act in critical situations and resolve life-threatening situations for the patient.

The objectives of the subject are aligned with the Sustainable Development Goals of the United Nations 2030 Agenda, including avoiding the use of paper as a teaching material (SDG 12), using recyclable materials in practical classes and workshops, and reducing environmental pollution caused by the use of inhalation drugs through different anaesthetic techniques and equipment (SDGs 7 and 13).

2. Learning results

The student, in order to pass this subject, must demonstrate the following results...

1. Be able to describe the different anaesthetic techniques
2. Know Anaesthesiology in its globality with its implications in the critically ill patient.
3. Have a global vision of the patient during the whole surgical process, in the three preoperative, intraoperative and postoperative periods

3. Syllabus

- Theoretical classes:

1. Introduction and History of Anaesthesiology
2. Pharmacology I
3. Pharmacology II
4. Pre-operative anaesthetic assessment of the surgical patient
5. Monitoring in anaesthesia
6. Anesthetic equipment and circuits. Breathing control
7. Postanesthesia Recovery Unit
8. Hydroelectrolytic disorders. Fluid therapy
9. Anesthesia in Obstetrics.
10. Anesthesia outside the operating room.
11. Anesthetic complications.
12. Basic and advanced cardiopulmonary resuscitation
13. Airway control and difficult intubation.
16. Locoregional anaesthesia techniques.
17. Pain therapy.
18. Anesthesia in Paediatrics
19. Anesthesia in General Surgery
20. Anesthesia in Traumatology and Orthopaedics

21. Anesthesia in Cardiovascular Surgery
22. Anesthesia in Urology
23. Anesthesia according to type of disease
24. Polytraumatized patient care
25. Anesthesia and Shock
26. Organ transplantation
27. Resuscitation of the post-surgical patient
28. Clinical cases of acute postoperative pain and chronic pain

- **Basic and advanced CPR workshops**

4. Academic activities

Lectures (28 hours): expository methodology with presentations by the teacher to the entire group. In the morning for 28 schooldays

Practical classes (8 hours): workshops at the Training Unit of the Miguel Servet University Hospital. In the afternoon from 16 to 20 h

Students will be divided into 4 groups for 2 workshops, one on basic CPR and the other on advanced CPR.

Evaluation tests (4 hours)

Teaching assignments (16 hours)

Personal study (40 hours)

5. Assessment system

The student must demonstrate that they have achieved the intended learning results by means of the following assessment activities

- **Theoretical exam:** written test on the basic knowledge of the subject (Syllabus). Examination of 30 questions and 5 reserve questions, 4 answers and only one correct answer. Incorrect answers are not subtracted. It is passed with 21 out of 30 questions. 70% of the final grade

- **Workshops:** attendance and putting into practice the concepts learned. 20% of the grade

- **Written work.** With a maximum length of 20 pages. 10% of the grade

Interpretation of genetic evaluations.

<https://medicina.unizar.es/quinto-curso#horario9>

6. Sustainable Development Goals

7 - Affordable and Clean Energy

12 - Responsible Production and Consumption

13 - Climate Action