

## CRITICAL CARE IN PATIENTS WITH BRAIN DEATH

### LEARNING OUTCOMES

#### KNOWLEDGE

- ACQUIRING THE BASIC ELEMENTS OF VITAL THERAPEUTIC SUPPORT
- FAMILIARIZATION WITH THE SPECIFICS OF THE CRITICAL PATIENT, OF HIS MONITORING
- KNOWLEDGE OF THE CLINICAL AND PARACLINICAL DIAGNOSTIC ELEMENTS OF THE MAIN ORGAN DYSFUNCTIONS
- FAMILIARIZATION WITH THE BASIC CLINICAL ELEMENTS OF RESPIRATORY, RENAL, HEPATIC INSUFFICIENCY, DIGESTIVE TRACT STRESS, HYDRO-ELECTROLYTIC AND ACID-BASE IMBALANCES, NEUROLOGICAL DYSFUNCTIONS
- KNOWLEDGE TO PERFORM AN APPROPRIATE CLINICAL EXAMINATION
- PROVIDING THE SPECIFIC NURSING CARE FOR ALL TYPE OF PATHOLOGIES FOR PATIENTS IN INTENSIVE CARE

#### SKILLS

- ACQUIRING THE SPECIFIC MEANS OF MONITORING, NURSING AND THERAPY FOR THE MENTIONED DYSFUNCTIONS
- MAKING A COMPLETE CLINICAL EXAMINATION IN ANESTHESIOLOGY AND INTENSIVE CARE
- PERFORMING BASIC AND ADVANCED DIAGNOSTIC AND THERAPEUTIC MANEUVERS IN ANESTHESIOLOGY AND INTENSIVE CARE
- DEVELOPMENT OF A TREATMENT PLAN INDIVIDUALIZED FOR THE CAREGIVERS

#### COMPETENCES

- ACQUISITION OF ORAL AND WRITTEN COMMUNICATION SKILLS WITH PATIENTS
- ACHIEVING A WORK / PROJECT, PERFORMING SPECIFIC TASKS RESPONSIBLY IN A TEAM ROLE
- APPLYING THE PRINCIPLES OF ETHICS AND PROFESSIONAL ETHICS IN THE FIELD

### ECTS CREDITS

2 ECTS

<i>Theoretical courses</i>	<i>Teaching Methodology</i>	<i>Number of hours</i>
History of brain death. What does brain death mean? Definitions of death by neurologic criteria.	Oral presentation + multimedia, E-learning. Online platform	2
Clinical exam in the determination of brain death. Prerequisites and confounders. Establishment of a persistent, irreversible cause. Clinical testing: brainstem reflexes	Oral presentation + multimedia, E-learning. Online platform	2
Apnea Test. Ancillary Tests	Oral presentation + multimedia, E-learning. Online platform	2
Nursing, Allied Health, and Interprofessional Team Monitoring and Team Interventions	Oral presentation + multimedia, E-learning. Online platform	2
Acid-base and hydro-electrolytic imbalances in diabetes insipidus. Crystalloid and colloid solutions. Electrolytes.	Oral presentation + multimedia, E-learning. Online platform	2



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Concentrations. Administration method. Basic and advanced monitoring of the critical patient.		
Shock. Acute heart failure. Cardio-respiratory arrest.	Oral presentation + multimedia, E-learning. Online platform	2
Coordination of care. Meeting the patient's physical needs and identifying the family's needs.	Oral presentation + multimedia, E-learning. Online platform	2

<b>Practical activities</b>	<b>Teaching Methodology</b>	<b>Number of hours</b>
ICU Clinic. Labor protection. Intensive therapy sheet. Basic and advanced monitoring of the critical patient.	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Brainstem reflexes. Apnea Test. Ancillary Tests	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Airway clearance. Oro-tracheal intubation. Ventilation on the mask. Oxygen therapy: administration rules, devices. Oxygen: source, storage, handling. Compressed air: source, storage, handling. Installation of the ventilation circuit. Tracheo-bronchial aspiration. Adjuvant respiratory therapies.	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Central and peripheral venous vascular access. Arterial vascular access. Rules of good medical practice. Rules for administration of inotropic/vasoactive substances and antibiotics	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Crystalloid and colloid solutions. Electrolytes. Concentrations. Administration method	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Body temperature measurement, temperature control, active heating/cooling. Rules for the prevention of nosocomial infections. Rules of good medical practice.	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4
Nursing the patient with brain death, potential organ donor.	Practical demonstrations, practical manoeuvres characteristics for intensive care. Virtual laboratory	4

### References

1. Marino PL: The ICU Book, 4th ed., Lippincott Williams Wilkins, 2014
2. Kumar and Clark's Clinical Medicine, Elsevier publishing house, 10th edition, July 2020

### Evaluation



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<i>Course activities – percent of the final grade - 50%</i>	<i>Practical activities – percent of the final grade - 50%</i>
<i>Final mark</i>	

<b>Training Methods</b>
<ul style="list-style-type: none"> <li>- <i>Lectures</i></li> <li>- <i>Independent Study</i></li> <li>- <i>Clinical stages</i></li> </ul>
<b>Innovative Digital Training Methods</b>
<ul style="list-style-type: none"> <li>- <i>Virtual laboratory</i></li> <li>- <i>Online platform</i></li> <li>- <i>E-learning</i></li> </ul>

