



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Donazione di Organi e Tessuti da Donatore a Cuore Fermo e Battente

2627-4-H4101D414

Aims

The course aims to provide students with theoretical knowledge and practical understanding of organ and tissue donation from donors after brain death and donors after circulatory death.

At the end of the course, students should be able to:

- understand the clinical, organizational, ethical and regulatory principles of organ and tissue donation;
- distinguish the main types of donors: donors after brain death, controlled and uncontrolled donors after circulatory death, and living donors;
- understand the process of identification, assessment, maintenance and management of the potential donor;
- describe the diagnostic and procedural criteria for brain death and irreversible circulatory arrest;
- understand the essential principles of multi-organ and multi-tissue procurement;
- recognize the role of hospital, regional and national coordination within the transplant network;
- develop awareness of the communicative, ethical and relational aspects involved in interactions with the family of the potential donor;
- recognize donation as a clinical, organizational and social process integrated into the care pathway of critically ill patients.

Contents

The course covers the main clinical, organizational, ethical and regulatory aspects of organ and tissue donation. Topics include the pathway of the potential donor in the intensive care unit, diagnosis of brain death, donation after circulatory death, donor management, assessment of organ and tissue suitability, procurement procedures, coordination of the transplant network and communication with the donor's family.

Detailed program

1. Introduction to organ and tissue donation
 - o General principles of donation and transplantation.
 - o Clinical and social impact of donation.
 - o Essential definitions: donor, potential donor, eligible donor, actual donor and utilized donor.
2. Organization of the donation and transplantation network
 - o Role of the National Transplant Centre.
 - o Regional and local coordination.
 - o Hospital donation coordination.
 - o In-hospital pathways and integration with intensive care, emergency medicine, operating rooms, laboratories and diagnostic services.
3. Donation after brain death
 - o Brain death: definition, clinical criteria and diagnosis.
 - o Differential diagnosis and confounding conditions.
 - o Medical-legal pathway and documentation.
 - o Management of the brain-dead donor.
 - o Hemodynamic, respiratory, endocrine-metabolic, infectious disease and coagulation optimization.
4. Donation after circulatory death
 - o Definition and classification of donation after circulatory arrest.
 - o Controlled and uncontrolled donation after circulatory death.
 - o Criteria for irreversibility of circulatory arrest.
 - o Organizational, logistical and time-sensitive aspects.
 - o Preservation techniques and normothermic regional perfusion.
 - o Differences from donation after brain death.
5. Assessment of donor suitability
 - o Clinical, laboratory, microbiological, virological and instrumental assessment.
 - o Eligibility criteria and absolute or relative contraindications.
 - o Organ-specific assessment.
 - o Marginal donors and extended criteria donors.
6. Tissue donation
 - o Types of tissues suitable for donation.
 - o Selection and eligibility criteria.
 - o Organizational and logistical aspects of multi-tissue donation.
 - o Relationship between organ donation and tissue donation.
7. Procurement and preservation
 - o Organization of multi-organ procurement.
 - o Professional roles in the operating room.
 - o Principles of organ preservation.
 - o Interaction between local teams, procurement teams and transplant centres.
8. Ethical, legal and communication aspects
 - o Consent, objection and individual wishes.
 - o Communication with family members.
 - o Separation between end-of-life decisions, death determination and the donation proposal.
 - o Proportionality of care, withdrawal of life-sustaining treatment and donation.
 - o Public trust, transparency and professional responsibility.
9. Quality, safety and governance
 - o Traceability and documentation.
 - o Quality indicators of the donation process.
 - o Infectious and neoplastic risk.
 - o Clinical audit and continuous improvement.
 - o Multiprofessional training and simulation.
10. Clinical cases and applied discussion
 - Identification of the potential donor.
 - Management of the donor in the intensive care unit.

- Donation pathways after brain death and after circulatory death.
- Discussion of complex ethical and communication scenarios.

Prerequisites

Basic knowledge of anatomy, physiology and general principles of care for critically ill patients is required. Specialist expertise in intensive care medicine, transplant medicine or donation coordination is not required.

Teaching form

Teaching will include lectures, interactive discussion of clinical cases, analysis of organizational and communication scenarios, and possible practical sessions or simulations focused on decision-making and management pathways. The course may involve different professionals from the donation and transplantation network, using a multiprofessional and multidisciplinary approach.

Textbook and teaching resource

Teaching resources will include:

lecture slides;

national and international guidelines and institutional documents;

protocols and procedures from the donation and transplantation network;

selected scientific articles;

clinical cases and additional material provided by the lecturer.

Teaching material will be made available according to the procedures adopted by the University.

Semester

The teaching period will be defined according to the academic calendar of the Degree Programme.

Assessment method

Assessment will be based on class attendance and active participation during teaching activities.

The evaluation will take into account:

attendance;

attention and participation during teaching activities;

interaction with the lecturer and the group;

contribution to the discussion of clinical cases, organizational scenarios and applied examples presented during the course.

Office hours

Students may meet the lecturer by appointment, upon request via institutional e-mail.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING
