



Course sheet

1. Program data

1.1.	CAROL DAVILA UNIVERSITY OF MEDICINE AND PHARMACY
1.2.	FACULTY OF MEDICINE / DEPARTMENT 8 Radiology, Oncology, Hematology
1.3.	SUBJECT HEMATOLOGY EMERGENCY UNIVERSITY HOSPITAL BUCHAREST
1.4.	FIELD OF STUDY: HEALTHCARE
1.5.	STUDY LEVEL: LICENSE
1.6.	STUDY PROGRAM: MEDICINE

2. Data on the subject

2.1.	Name of the discipline / mandatory / optional subject within the discipline: TRANSFUSION AND STEM CELL TRANSPLANTATION IN HEMATOLOGY - within the HEMATOLOGY discipline UNIVERSITY EMERGENCY HOSPITAL BUCHAREST						
2.2.	Location: Emergency University Hospital Bucharest						
2.3.	Responsible for lectures: PROF. UNIV. DR. VLADAREANU ANA MARIA						
2.4.	Responsible for practical clinical learning activities: LECTURER DR. CISLEANU MAGDA DIANA, ASIST UNIV. DR. VASILE DANIELA STEFANIA, ASIST. UNIV. DR. NEAGU ANA-MARIA, DR. CORINA POSEA (invited lecturer), DR. ALINA DOBROTA (invited lecturer)						
2.5. Year of study	V	2.6. Semester	I or II	2.7. Type of evaluation	Written exam	2.8. The type of academic discipline	Optional

3. Estimated total time (hours / semester of teaching activity) - modular education

No. of hours per week	14 hours	Of which: lecture	10 hours	Clinical internship	4 hours
Total no. of hours in the curriculum	14 hours	Of which: lecture	10 hours	Clinical internship	4 hours
Time frame	1 week	Of which: lecture	2 hours/day x 5 days	Clinical internship	1 hour/day x 4 days
Study by textbook, course support, bibliography, and notes					
Additional documentation in the library using specialized electronic platforms					
Preparation of seminars, topics, papers, portfolio, and essays					
Tutoring					
Exams					
Other activities					
Total individual study hours					
Number of credits					2

4. Preconditions (where applicable)

4.1. curriculum	Anatomy, Biochemistry, Physiology, Genetics, Pharmacology, Internal Medicine Semiology
4.2. skills	Medical history, General clinical examination of the patient

5. Necessary conditions (where applicable) for:

5.1. course	Classroom, Video projector, laptop / PC
5.2. clinical internship	Clinical Department of Hematology / Laboratories

6. Acquired specific skills

Professional skills (expressed through knowledge and skills)	- Description of the basic concepts, theories, and notions regarding transfusion therapy - Transfusion therapy indications; signs and symptoms of diseases that require transfusions - Description of indications, contraindications, side effects of transfusions and their management - Preventive measures against adverse reactions - Pre-transfusion tests - Substitution treatment in anemia / hemorrhagic syndrome
Transversal skills (role, professional and personal development)	- Responsibilities in a multidisciplinary team - Helping the students to develop communications skills with the patient and the family - Developing rational thinking, empathy, professional ethics and responsibility - Ability to recognize a medical condition suggestive for a hematological disease - Theoretical basis for novel therapies, molecules, state-of-the-art procedures, and stem cell transplantation - Ability to estimate a patient's prognosis diagnosed with a hematological disorder, taking into account the particularity of the case - Palliative measures and life quality of hematological patients - Transplant indications, types of transplants, the main post-transplant complications, evaluation of a post-transplant patient

7. The objectives of the lecture (based on the grid of specific skills acquired)

7.1. The main objective	Training and familiarization of the student with transfusion therapies and their indication in hematological diseases (clinical aspects, paraclinical and interdisciplinary approach, treatment principles, particularities of the hematological patient care)
7.2. Specific objectives	At the end of the internship the student must be able to: - examine the patient with hematological disease, including those patients who have hematopoietic stem cell transplant indication - to correctly assess specific hematological analyzes including immunohematology tests - to know the algorithm for managing and monitoring a transfusion - to know the correct management of the adverse reactions of blood transfusions - to evaluate the patient with transplant indication

	- to evaluate and monitor the patient's evolution after the hematopoietic stem cell transplantation; - to recognize and manage the possible complications of an immunocompromised patient after hematopoietic stem cell transplantation
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8. The content

8.1. Lecture	Teaching methods	Observations
1. Introduction to hematopoiesis, definitions and determination of blood groups. Difficulties in determining blood groups and pre-transfusion compatibility tests	Direct presentation to electronic media (Power Point presentation)	2 hours
2. Blood products - types, preservation, principles of administration, blood donation	Direct presentation to electronic media (Power Point presentation)	2 hours
3. Immunological and non-immunological post-transfusion adverse reactions	Direct presentation to electronic media (Power Point presentation)	2 hours
4. General indications of autologous and allogeneic transplantation stem cells in regenerative medicine	Direct presentation to electronic media (Power Point presentation)	2 hours
5. Principles of conditioning treatment. Transfusion support in stem cell transplant patients. Supportive therapy in stem cell transplantation. Complications in post-transplant patients. Restoring immunity after stem cell transplantation. Molecular monitoring after transplantation (BMR and Chimerism). Post-transplantation stem cell immunotherapy	Direct presentation to electronic media (Power Point presentation)	2 hours
8.2. Clinical internship	Teaching methods	Observations
Presentations of clinical cases / patients with hospitalized hematological diseases Hematology Departments, Laboratory	Patient interaction / medical history / clinical examination / Assessment of laboratory tests / blood type determination protocol / compatibility tests / immunohematology tests / donor evaluation / transfusion monitoring protocol and adverse reaction management	4 hours
Bibliography Cursul catedrei: Hematologie Clinică, Anca Roxana Lupu, Ana Maria Vladareanu, Daniel Coriu, Editura UMF Carol Davila, Sept 2017 Protocoale Clinice de Transfuziologie, Andrada Parvu, Anca Bojan, Armeana Zgaia, Casa Cartii de Stiinta 2017. Compendiu de Specialitati Medico- Chirurgicale (pentru rezidentiat), sub redactia Victor Stoica, Viorel Scripcaru, Editura Medicala, 2016		

Indications for allo- and auto-SCT for haematological diseases, solid tumours and immune disorders: current practice in Europe, 2015, A. Sureda et al., Bone Marrow Transplantation, 2015.
 A beginner's guide to blood cells / Barbara J. Bain. – 2nd ed.
 Practical Haematology; Dacie and Lewis; Eleventh Edition, 2012
 Essential Haematology; Victor Hoffbrand, Paul Moss, John Pettit, 7th Edition (2016)

9. Corroborating the discipline content with the expectations of professional community representatives

Appropriate training for the 5th year medical students to recognize the hematological disorders and their indications for hematopoietic stem cell transplantation and transfusion therapy.

10. Evaluation

Type of activity	Evaluation criteria	Evaluation methods	Percentage of final degree
Lecture	Knowledge of the theoretical notions	Written exam - 5 subjects	80%
Clinical internship	Activity during the clinical internship	Attendance / discussions	20%
Minimum performance standard			
5 th grade – passing grade for the written and practical exam. Minimum 50% for each component of the assessment			

Date:

Signature of the course chair

Seminar chair's signature

22th September 2025

According to the list of positions

According to the list of positions

**Date of approval in
Department Council:**

Head of Discipline

Department Director

Prof. Univ. Dr. Ana Maria Vladareanu

Prof. Univ. Dr. Daniel Coriu