

Performance teaching plan

Transfusiology and transplantology

Academic year 2024/2025

Leader teaching: Jadranka Knežević, MD, PhD.

The Transfusiology and Transplantology teaching is a compulsory subject in the fifth year of the Department of Surgery at the Faculty of Medicine of the University of Mostar with 20 hours (7 hours of lectures, 5 hours of seminars and 8 hours of exercises). The teaching is conducted in the premises of the University Clinical Hospital Mostar.

Objective of the teaching:

Demonstrate and adopt the basic knowledge and skills in the field of Transfusion and Transplantology necessary for a doctor of medicine.

Teaching content:

Everything about donating whole blood and donor apheresis, safe blood.

Definition of voluntary blood donor.

Blood testing after collection from a voluntary donor

Testing of patients who need to be prescribed a blood product and pregnant women

Immunohematological blood tests (ABO blood group, Rh factor, other blood group systems, indirect and direct Coombs test, cross test/compatibility test.

Testing for blood-borne diseases: Hepatitis B (HBsAg), Hepatitis C (anti HCV), AIDS (anti HIV, HIV Ag,) Syphilis (treponema pallidum).

Production of blood products (erythrocyte concentrate, platelet concentrate, fresh frozen plasma, washed erythrocytes, washed platelets, V group, filtered (leukodepleted preparations), pathogen inactivation, irradiated and their preservation.

Issuance of blood preparations according to the patient.

Treatment with blood products, post-transfusion reactions, haemovigilance

Transplantation medicine medicine, HLA tissue typing, cross match, bone marrow stem cell donor register and collection of stem cells from peripheral blood

Autologous and allogeneic bone marrow transplantation

Transplantation of solid organs

Obligations of students:

Teaching is conducted in the form of lectures during which the teacher explains the topic and encourages active and critical thinking of students and participation in the discussion. Teachers and students discuss the specifics and problems within each topic covered. Attendance records are kept for each student. At the end of the class there is a written final exam.

<p>Tem , number and form of teaching unit</p>	<p>Topics, lectures, seminars, exercises and literature</p>
<p>Lecture 1,2</p>	<p>History of transfusiology</p> <p>Blood donation,</p> <p>Blood preparations (indications and application)</p>
<p>Seminar 1</p>	<p>Blood transmit diseases</p>
<p>Literature:</p>	<p>This edition first published 2021</p> <p>© 2021 John Wiley (selected chapters)</p> <p>Denise Harmening- Modern blood banking&Transfusion practices (selected chapters)</p> <p>Notes from lectures, seminars and exercise</p>

Exercises 1,2,	
Lecture 3,4,	Blood groups ABO and Rh D and other blood group systems Direct (DAT), Indirect (ICT) Coombs test, crossover test Post-transfusion reactions, side effects of transfusion treatment
Seminar 2,3,4	Hemolytic disease of the newborn The role of transfusion medicine in the treatment of patients Hemostasis

<p><i>Exercises 3,4,5</i></p>	
<p>Lecture 5, 6, 7</p>	<p>Transplantology, history</p> <p>Bone marrow stem cell donor registry</p> <p>Post-transplantation reactions, side effects</p> <p>Autologous and allogeneic bone marrow transplantation</p> <p>Transplantation of solid organs</p>
<p>Seminar 5</p> <p>Exercises 6, 7,8</p>	<p>HLA tissue typing, cross match, blood groups ABO and Rh D and other blood group systems, molecular aspect</p>
<p>Literature:</p>	<p>Notes from lectures, seminars and exercise</p> <p>This edition first published 2021</p> <p>© 2021 John Wiley (selected chapters)</p> <p>Denise Harmening- Modern blood banking & Transfusion practices (selected chapters)</p>

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21.01.2025. Tuesday

9,00-9,45 Lecture. 1 History of transfusiology

9.45-10.30 Lecture 2 Blood donation, indications and application

10,30-11,15 Seminar 1 Blood-transmit diseases

11,15-12,00 Break

12,00-12,45 Exercises 1

12,45-13,30 Exercises 2

13.30-14.15 Exercises 3

22.01.2025. Wednesday

9,00-9,45 Blood groups ABO and Rh D and other blood group systems

9.45-10.30 Direct (DAT), Indirect (ICT) Coombs test, crossover test

Post-transfusion reactions, side effects of transfusion treatment

10.30-11.15 Seminar 2 Hemolytic disease of the newborn

11.15-12.00 Seminar 3 The role of transfusion medicine in the treatment of patients

12.00- 12.45 Seminar 4 Hemostasis

12.45-13.30 Break

13.30-14.15 Exercises 4

14.15-15.00 Exercises 5

23.01.2025. Thursday

9,00-9,45 Transplantology, history

9.45-10.30 Bone marrow stem cell donor registry

10.30-11.15 Post-transplantation reactions, side effects
11.15.-12.00 Transplantology in transfuziology
12.00-12.45 Break
12.45-13.30 Seminar 5 HLA tissue typing, crros match,
blood groups molecular metode
13.30-14.15 Exercises 6
14.45-15.00 Exercises 7
15.00-15.45 Exercises 8

Lectures and seminars should be held in the lecture hall on the 8th floor of the main building of SKB Mostar on January 22.do 24.01.2025. The exercises would be done at the Transfusion Center SKB Mostar

The exam will be held on Friday, January 24, 2025. according to agreement (The proposal is at 10 a.m. at the Faculty of Medicine in Mostar - secure space).

Exam

The final exam is a written.

The student succeeds on the basis of the solved questions on the test, of which 50% of the correct answers to the questions in the test must be satisfied in order to pass

A= 91-100% 5 (excellent)

B = 79 to 90% 4 (very good)

C = 67 to 78% 3 (good)

D = 55 to 66% 2 (sufficient)

F = 0 to 54% 1 (insufficient)

Literature:

This edition first published 2021

© 2021 John Wiley (selected chapters)

Eisenbrey, AB. HLA from table to bed. London, United Kingdom: Academic Press, an imprint of Elsevier; 2021.

Boegel S. HLA Typing: Methods and Protocols. New York: Springer Link; 2024.

Katalinić N, Balen S. The HLA System in Clinical Practice. Osijek: Josip Juraj Strossmayer University of Osijek; 2021.

Internal medicine, Božidar Vrhovac, Branimir Jakšić, Željko Rainer, Boris Vucelić - 4th edition

Denise Harmening- Modern blood banking & Transfusion practices (selected chapters)

Notes from lectures, seminars and exercise