

26751 - Transfusions in Medicine

Información del Plan Docente

Academic Year	2017/18
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

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives.

The subject will be structured in 10 lecture room of 2 hours each, 5 practice sessions of 2 hours each and two laboratory session of 5 hours each that will be held in the Transfusion Service of HCU Lozano Blesa and in The Bank of Blood and Tissues of Aragon.

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The content of the lecture room will be supported by a basic bibliography on Transfusion Medicine previously recommended and adapted to the level of knowledge of the student. Further information regarding the course will be provided on the first day of class.

In the practice sessions the students will work on case studies in which they will establish transfusion indications and will be trained in special situations of clinical practice.

The training will be completed with the laboratory session that will allow the students to know the processes of promotion, obtaining, fractionation and storage of the blood components as well as special therapeutic procedures.

5.2.Learning tasks

The program offered to the student to help him achieve the expected results includes the following activities (developed in section 5.3 Program)

Teaching in person 45% 1.80 ECTS (45 hours)

Large groups (45%) 0.81 ECTS (20,25 hours) 10 lecture room with the following program (5.3)

Small groups (45%) 0.81 ECTS (20,25 hours)

5 Practice sessions

2 Laboratory sessions:

Autonomous work 55% 2.20 ECTS (55 hours)

It is the student's autonomous work dedicated to the study and preparation of practical cases for presentation.

5.3.Syllabus

Topic 1.- Transfusional Medicine: Concept, objectives and historical background.

Topic 2.- Structure of Transfusion Medicine in Spain:

Current legislation, Blood Banks and Tissues, Hospital Transfusion Services and Hospital Transfusion Commissions.

Topic 3.- Importance of the Blood Bank in transfusion safety:

Importance of the Blood Group in Transfusion Safety. Donation, procurement, processing and distribution of blood components.

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Topic 4.- Importance of the Transfusion Service in Transfusion Safety:

Administration of blood components. Errors and adverse effects of transfusions.

Topic 5.- Clinical Process of Transfusion:

Basic Immunohematology. Scientific Evidence and Clinical Guidelines for Transfusion.

Topic 6.- Transfusion in special situations:

Anesthesia and Massive Transfusion. Transfusion in Neonatology and Hemolytic Disease of the Fetus and Newborn

Topic 7.- Alternatives to Transfusion:

Procedures aimed at saving homologous blood. Predefined autodonation and other procedures. Apheresis Procedures. Erythropheresis. Therapeutic apheresis.

Topic 8.- Transfusional therapy and hemostasis alterations:

Implications of hemostasis in transfusion of blood components.

Indication of transfusion of plasma components.

Topic 9.- Hemovigilance systems.

Topic 10.- Quality Systems in Transfusion Medicine and Optimal Use concept.

5 Seminars with the following program:

1.- Transfusion Indications of RBC Concentrates

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2.- Transfusion indications of fresh frozen plasma, plasma platelets and blood products

3.- Practical seminar of alternatives of transfusion.

4.- Situation of Extreme Urgency and Massive Transfusion. Performance

5.- Information for the patient who will receive a Transfusion and Consent.

2 Laboratory sessions:

1.- Procedures in Blood Bank and Tissues of Aragon (BSTA)

2.- Transfusion Service Procedures (HCU Lozano Blesa)

5.4.Course planning and calendar

Calendar of face-to-face sessions and presentation of works

Classes are considered: Lectures, Practice sessions and Laboratory sessions.

During the 9th semester of Grado, lectures will be taught from 5 pm to 8 pm (3 hours a week) on tuesdays until the end of the program.

The practice sessions will be held on the same schedule once the lectures have been completed.

The laboratory sessions will be scheduled in the same day, each practice with a duration of 4 hours (16 to 20 hours).

The programming of the practices can be consulted in the bulletin board of the 9th semester of Grado.

5.5.Bibliography and recommended resources

The student will find useful study material

Fundamental material for the study by the student will be on the website of the Ministry of Health and Consumer Affairs under the section of Professionals - Public Health - Transfusion Medicine.

Teaching material of interest will be delivered in first class lecture to expand the basic knowledge to be collected in the lectures and seminars of the subject

For further details concerning the timetable, classroom and further information regarding this course please refer to the "Facultad de Medicina" website [*titulaciones.unizar.es/medicina/](http://titulaciones.unizar.es/medicina/)

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1. Guide on transfusion of blood components and plasma derivatives. Spanish Society of Blood Transfusion and Cell Therapy. 5th Edition 2015
2. Royal Decree 1088/2005. Accessible at: <http://www.boe.es/boe/dias/2005/09/20/pdfs/A3128831304.pdf>
3. Best Use Manual. <http://www.optimalblooduse.eu/sites/optimalblooduse.eu/files/EU/Blood/Manual/Spanish.pdf>
4. Blood Transfusion Standards CAT, 4th edition (2012)
5. Guide to the preparation, use and quality assurance of blood components. Ed: Council of Europe publishing, 17th edition, 2013. Accesible en: <http://www.edqm.eu/en/blood-transfusion-guides-1608.html>
6. Guidelines for the blood transfusion services in the United Kingdom, 8th edition, 2013. Accesible en: <http://www.transfusionguidelines.org.uk/red-book>
7. Guidelines for the administration of blood products. Australian and New Zealand Society of blood transfusion Ltd. 2nd edition, 2011. Accesible en: http://www.anzsbt.org.au/publications/documents/ANZSBT_Guidelines_Administration_Blood_Products_2ndEd_Dec_2011
8. Safe blood components. Key elements. World Health Organization 2005.WHO/EHT/05.0.1