Escola Doctor Robert
Adscrita a la UAB

Blood Donation 2018/2020

Code: 1275
ECTS Credits: 10

Description	Type	Course	Semester
43316 Blood Donation	OB	1	1

Module Head Teacher

Name: Sílvia Sauleda & Paolo Rebulla

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Use of languages

Principal working language: English (Eng)

Other comments on languages

Language will be English, although it is possible to do the communication in Spanish. The materials will be in English.

Teachers

Sílvia Sauleda: She studied Biology in the University of Barcelona and obtained the PhD in 1999. She worked in the Liver Unit of the Vall d'Hebron University Hospital in Barcelona, where she specialized in research of hepatitis viruses. Since 2000 she is the Head of the Transfusion Safety Lab of the Catalan Blood and Tissue Bank (Spain), where she is responsible for the infectious disease screening of blood donations. She has ongoing research projects on hepatitis B and C, and transfusion transmitted emerging infectious diseases.

Arturo Pereira: He received his MD in 1980 by the University of Barcelona (UB) and obtained his PhD in 1989 (UB). After completing the residency training at the Hospital Clínic of Barcelona, he received his specialist degree in Hematology & Haemotherapy in 1995. He has developed his entire professional and scientific career as staff hematologist in the Service of Haemotherapy and Hemostasis and the Blood Bank of the Hospital Clínic of Barcelona, where he worked in blood donation, clinical apheresis, immunohematology, and blood transfusion. He is now Senior Consultant in the Hospital Clínic and Associate Professor of Medicine in the UB.

Maria Piron: Biologist. After completing her doctoral thesis in molecular virology in France, she became a postdoctoral researcher in the group of liver diseases of the Hospital Vall d'Hebron (Barcelona, Spain). She has been working at the BST for 12 years and currently holds the position of Adjunct Physician at the Banc de Sang i Teixits Transfusion Safety Laboratory.

Prerequisites

It is necessary to have a level B2 of English or equivalent.

Objectives and Contextualization

In this module the entire blood donation process will be studied from the promotion of the donation of blood, the donation procedures (donor selection criteria, aphaeresis, whole blood donation), the laboratory screening of the blood and, finally, the different methods to obtain blood components for transfusion.

Skills

- That students are able to integrate knowledge and face the complexity of making judgments based on information that, incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.
- That students know how to communicate their conclusions and the latest knowledge and reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.
- Select and assist donors and ensure long-term loyalty.
- Design safety strategies in the donation process in accordance with European regulations.
- Ability to work in multidisciplinary teams.
- Design and develop research with appropriate methodologies.

Learning outcomes

1. To identify main needs in donor recruitment.
2. To manage communication skills.
3. To know the key concepts of European Regulation and how they translate in daily job.
4. To describe exclusion/inclusion criteria of donors.
5. To evaluate the donor questionnaire and to know how to perform the interview and physical examination.
6. To categorize different kinds of donations and factors affecting the quality of the blood product.
7. Interpret the significance of the different infectious markers in the screening laboratory.
8. Construct strategies for blood safety based on epidemiological data, emerging infectious agents and epidemiological outbreaks.
9. To know the different methodologies for blood component production.

Content

1. Introduction.
2. Promotion of blood donation.

2.1. Voluntary vs Remunerated donation.

2.2. Participation of volunteer associations in donation promotion.

3. Blood donation.

3.1. Donor selection criteria.

3.2. Care, attention and information provided to blood donors.

3.3. Donation of blood.

4. Blood donation screening.

4.1. Blood screening for infectious diseases.

4.2. Immunohematology testing in blood donation.

5. Blood components for transfusion.

5.1. Primary fractionation of blood and preservation of blood products.

5.2. Pathogen reduction in blood products.

5.3. The risk of bacterial contamination in blood products.

Methodology

This course will follow an active and constructive methodology. It is not the content but remember to read and reflect and apply knowledge to situations reasonably close, creating meaningful learning.

Thus, work on real-life examples and case studies, reflecting on complex situations and little structured in order to find appropriate solutions.

Faithful to the proposed methodology, students like you are the center of the learning process. Build knowledge significantly actively interacting with your peers, with training, with materials, with the environment. This program not only teaches about virtual training but also will live every day intensely from the experience.

At the beginning of the unit, the teacher will present to the board, including a proposal for planning learning with specific targets to be achieved in each of them with learning activities to be performed, the resources used and recommended dates for each work activity.

The dates for carrying out activities in nature are "recommended" to the proper tracking and use of the course. The only dates that are considered "immovable" are the beginning and end of UD. This means that students can follow their own planning as long as they respect the start and end dates.

It is recommended to try to operate continuously and do not let the tasks accumulate on date. For two basic reasons: firstly, accumulating tasks for a single date can lead to work in a hurry, overwhelmed by the time and not allow or enjoy learning or further reflections being carried out; moreover, the course provides activities in group dynamics, and to bring to fruition a cooperative work you need a minimum of temporal synchrony.

Some activities should be sent to the teacher so that they can be checked, along with you and your learning. Thus, the teacher will return your work commented so, together with him, you can continue reflecting and learning from each. The maximum deadline for these activities will be the final date of each UD. Other activities will be sharing, discussing and working together on shared spaces.

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed	50	2	
Discussions through the Virtual Campus			1, 2, 7,
Type: Supervised	75	3	
Virtual Case/Problem Solving			2, 3, 7
Elaboration of projects			2, 3, 7.
Type: Autonomous	125	5	
Test/Scheme			7
Personal study			1-9
Reading articles/Reports of interest/Videos			1-9

Evaluation

The Module will be evaluated through:

1. Open discussion: Donor recruitment. This activity will account for 25% of the final score in Module 1. Students are expected to discuss different strategies to recruit donors and investigate what is the usual practice in their countries of origin.

2. SOP on blood donation. This activity will account for 12’5% of the final score in Module 1. Students need to provide a fictional standard operation procedure with the critical steps in donor traceability.

3. Scheme. This activity will account for 12’5% of the final score in Module 1. The students should provide a brief description of the critical steps in this process that are related to the quality, donor safety, and safety and efficacy of the blood product.

4. Algorithm. This activity will account for 25% of the final score in Module 1. The students need to discuss available safety strategies regarding the risk of infectious diseases transmission according to different scenarios.

5. Multiple Choice Test UD5. This activity will account for 25% of the final score in Module 1. This test is intended to check whether the students are familiarized with the quality control procedures for blood components.

Evaluation Activities

Title	Weighting	Hours	ECTS	Learning outcomes
Open discussion: Donor recruitment	25 %	50	2	1,2
SOP on blood donation	12'5 %	75	3	3,4,5,6
Scheme	12'5 %	125	5	3,4,5,6
Algorithm	25 %	125	5	7,8
Multiple Choice Test	25 %	125	5	9

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