UCLouvain

wbcmm2101

2026

Basic technical services in clinical biology: routine and on-call

3.00 credits	20.0 h + 10.0 h	Q1

Teacher(s)	Mullier François ;Rousseaux Madeleine ;Saussoy Pascale (coordinator) ;van Dievoet Marie-Astrid ;
Language :	French
Place of the course	Bruxelles Woluwe
Main themes	Morphology (5 hours) : - Automated counting of the blood cells - Errors in an Haematological Morphology Lab - Quality control (including the evaluation of an automated haematology counter) - Microscopy : principles, special optical systems, electron microscopy - General morphological methods : harvesting, fixation, differentiation, - Special morphological methods : cytochemistry, cytoenzymology, immunocytochemistry, autoradiography Immuno-haematology (5 hours) : - Blood groups - Irregular anti-erythrocyte allo-antibodies - Anti-erythrocyte auto-antibodies - Pretransfusion cross-matching - Flow cytometry : principles and applications Transfusion (4 hours) : - Blood donation - Organization in a blood transfusion centre - Red cell transfusion - Labile and stable blood components - Transfusion complications Haemostasis (6 hours) : - Routine tests in coagulation - Specific quantitative analysis of factor VIII, von Willebrand, IX, XI, XII, and prenatal diagnosis of haemophilia and von Willebrand disease - Specific quantitative analysis of factor I, II, V, VII, X - Dysfibrinogenemia evaluation - Thrombophilic evaluation - Activation markers in haemostasis - Screening and quantitative analysis of natural and pathological coagulation inhibitors - Control of the efficacy of anticoagulant and anti-aggregation treatment - Evaluation of the fibrinolysis and control of thrombolytic treatment
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 Explanation of the methods used in morphology, immuno-haematology, blood transfusion and haemostasis. Teaching interpretation of the results in relationship with the clinical situations. Quality control and general organization in a Haematology Lab.
Evaluation methods	Various skills must be acquired at the end of the training in the 3 sectors (chemistry, hematology and microbiology)
Teaching methods	Practical (training in the field by routine teams) and theoretical
Content	Practical and teaching about the medical supervision of the emergency tests (haemostasis, blood transfusion and morphology)
Inline resources	NA
Faculty or entity in charge	MED

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Advanced Master in Clinical Biology	BCMM2MC	3		