

Host Defense and Blood (HDB) – FOM1

FM-108 72 course hours

Updated November 2018

Host Defense and Blood (HDB) provides an integrated overview of blood and its disorders (hematology), immunology and inflammation. It incorporates several features including on-line self-learning modules, clinical case discussions and in-class problem-solving sessions. Our specific focus is on building student knowledge of the interactions between the blood, immune and inflammatory systems and using this information in conjunction with clinical data to identify important hematological and immunological disorders.

After completion of HDB course, MS1 will be able to:

- Describe the development of blood cells in the bone marrow and the organization of immune cells in lymphoid organs (Physician as a Scientist and Clinical Problem Solver)
- Explain the elements of both the innate and adaptive immune responses to pathogenic infections (Physician as a Scientist and Clinical Problem Solver)
- Describe the relationship of immune mechanisms to pathogenic states such as inflammation, hypersensitivity, autoimmunity, immunodeficiency, and transplant rejection (Physician as a Scientist and Clinical Problem Solver)
- Explain the immunological basis of vaccination (Physician as a Scientist and Clinical Problem Solver)
- List and explain the principal acquired and inherited forms of hematopoietic failure including anemia, leukopenia and thrombocytopenia and discuss related clinical syndromes and their treatment (Physician as a Scientist and Clinical Problem Solver)
- Describe the morphology, cytogenetic correlates, clinical features and principles of treatment of principle forms of hematological malignancies, including primary bone marrow malignancies, lymphoid malignancies and plasma cell disorders (Physician as a Scientist and Clinical Problem Solver)
- Discuss the use of blood products and derivatives in transfusion therapy (Physician as a Scientist and Clinical Problem Solver)
- Explain the principles of hemopoietic progenitor cell transplantation in the treatment of hematological disease (Physician as a Scientist and Clinical Problem Solver)
- Describe the principal mechanisms of the hemostatic system, including platelets and the coagulation proteins in normal and pathogenic states (Physician as a Scientist and Clinical Problem Solver)
- Discuss pathological thrombotic states and the principles of pharmaceutical intervention in their treatment (Physician as a Scientist and Clinical Problem Solver)

Assessment is based on quizzes, in-class polling sessions and exams.

Course leader

Robert Weinstein, MD

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